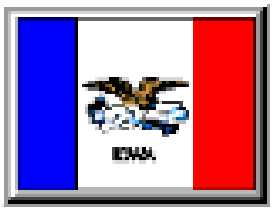
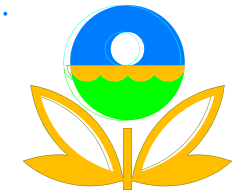


Iowa Department of Natural Resources

Air Program Review

Final Report

August 16, 2002



Conducted by the

U.S. Environmental Protection Agency

Region 7

901 N. 5th Street

Kansas City, Kansas 66101

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Section 1

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Executive Summary

Introduction

The following summarizes findings resulting from the EPA's July 2001 review of the operations of the Iowa Department of Natural Resources' (IDNR) Air Quality Bureau (AQB). The report is divided into sections, each applying to a major program area. The following summary addresses our findings with respect each of these areas in the same order they appear in the body of the report.

Planning

Regulatory Development

The regulatory development portion of the review focused the technical development and administrative review processes associated with rule adoption. The objectives were to: (1) determine whether the AQB has established well defined technical and administrative processes; (2) to evaluate the bureau's written policy and guidance documents; and (3) assess the level of adherence to bureau procedures.

With respect to the technical development of rule amendments and new rules, the Department utilizes a Rule Recommendation Request Form which asks for detailed information regarding the purpose of the potential rule change, its impacts, applicable authorities, and likely public comments. However, technical guidance should be provided to staff with regard to how to develop answers to the questions at hand. Occasionally and appropriately so, rule changes are challenged during the adoption process. In some instances, those challenging the rule action claim they will suffer drastic adverse impacts. In such cases, the state must respond to criticism and/or refute these claims and are constrained by the time frames associated with the rule adoption process. The EPA recommends that standardized rigorous methods be developed and applied in advance of administrative process. This would ensure consistency in the rule development process, ensure that the impacts of proposed regulatory actions are fully assessed, and better position the state to defend and maintain its position when actions are challenged.

With respect to administrative procedures, the AQB relies primarily on three documents which define the process for promulgating new rules and revisions: a protocol, a table listing the steps in the process and tracking completion of these steps, and the Iowa Administrative Procedures Act. All contain highly detailed instructions. Collectively, the documents appear to cover all of the applicable steps. However there are at least some steps that are addressed in one, but not the other, which could lead to an oversight or omission of such steps. The EPA recommends that these documents be reviewed and made consistent.

Emission Inventory

A technically defensible emissions inventory serves as the foundation of sound public policy. Prior to the year 2000, the IDNR had been collecting emissions information from Title V point sources, but did not include statewide emissions from Area, Biogenic, Mobile, or Non-Road Mobile sources. Currently, the IDNR has a renewed commitment to provide a comprehensive statewide emissions inventory for all source categories. Once completed, the inventory will greatly improve the ability of the department to derive technically defensible control strategies within the state. Also, given Iowa's involvement in current and future regional planning processes, a solid emissions inventory will enhance its ability to assess Iowa's impact on the air quality of surrounding states as well as to help characterize the incoming impact from transported pollutants into the state. Some highlights of our inventory review are listed below. More details and specific recommendations can be found in the emission inventory portion of section three.

Individual interviews were held with each member of the emission inventory unit. All members felt they had been adequately trained and had been provided all the necessary tools in order to do their jobs effectively. A training plan has been developed for new employees joining the unit. This plan provides an excellent educational background for emission inventory work. The plan makes good use of the APTI course work and allows for close interaction with the team leader. Also, all members were able to attend the annual National Emission Inventory (NEI) Conference that was held in Denver, Colorado, in 2001.

The AQB is currently in the process of updating to a new data base system. They have contracted with Windsor Technologies to develop the State Permitting and Air Reporting System (SPARS). Once fully functional, SPARS will streamline a variety of tasks, including the updating of annual emissions inventory submittals. Sources will then have the option of filing out the EIQ forms electronically without having to send in a hard copy.

The EPA encourages states to submit their Criteria and Toxics emissions inventories to the NEI in the Office of Air Quality Planning and Standards (OAQPS). Current effort is underway to inventory all states' and locals' 1999 inventory. Iowa is one of the only remaining states that have not provided an inventory to date. Agencies who were unable to submit data to the NEI by the date will be given another opportunity to make a submission in 2002.

Grant and Work Plan Management

This portion of the review focused on four areas: work plan development, funds management, use of work years, alignment with EPA priorities and the Government Performance and Results Act (GPRA). Our findings indicate the state's grant and associated work plan are well managed. Financial tracking is particularly well done. Financial transactions are tracked in great detail inspiring confidence that all funds can be accounted for should any questions arise. Work is tracked and resources are effectively managed. Workload and staff resources are managed through the use of several tools including general staff meetings, weekly meetings with

lead workers, weekly and monthly activity reports, time studies, and data base reports. Internal audits are performed to ensure that Quality Management Plans (QMP) and applicable Quality Assurance Project Plans (QAPP) are appropriately implemented. It was unclear whether QMPs and QAPPs are distributed appropriately when updates or employee turnover occurs.

While the routine grant processes are managed very well, it was noted that the AQB currently undertakes no strategic planning. The program is managed around what it views as its core functions and "hot issues" as they arise. At present this does not appear to significantly hinder the bureau's progress. Resource limitations limit the bureau's ability to expand the list of current priorities. FTE ceilings and increasing pressure to reduce the use of contractual employees result in an unstable environment which is not conducive to major planning efforts. At a minimum, we recommend that the EPA and the AQB review environmental priorities and reevaluate the list of "core activities" on an annual basis.

Local Agency Coordination

The EPA's review was intended evaluate the degree of coordination with the Polk and Linn County air programs, the financial management practices associated with their respective subgrants, and level of consistency between the local and state air regulations. The AQB and the local agencies negotiate and sign annual Letters of Agreement (LOA). These LOA are extremely comprehensive. Coordination is maintained through quarterly meetings, conference calls, e-mail, and other written correspondence. Funding levels are based on the scope of the LOA. Up to state fiscal year 2001, audits were performed annually. Audits are now performed biennially. In addition, the local programs are required to provide for third party audits. Rule updates are primarily coordinated through quarterly meetings and reliance on the Iowa Administrative Bulletin.

Local agency rules are often "out of sync" with the state's rules for lengthy periods of time. Building the local agency notification into the rule development protocols would likely reduce amount of time frame local rules are inconsistent with the state's rules. Local agency oversight may be an area of concern in the future. The AQB indicated that local agency may be reduced in the future given the uncertainty with respect to the use of contract resources to assist with this task.

Training

This portion of the program review focused on AQB's training policies, budget, and adequacy. While no official training policy exists, each supervisor sets a training program for his/her team members. All desired training is provided. Funding appears to be adequate and expenditures are appropriately tracked. The EPA and AQB staff identified a number of areas where enhanced training is desirable. Options included CAA orientations, permitting

orientations, emissions inventory training, GPRA, P2, NAAQS, State Implementation Plans (SIP), and QAPPs. Staff agreed to contemplate these possibilities and others and provide suggestions to the EPA.

Modeling

The modeling group is doing an excellent job in evaluating and performing air quality analyses. In addition to the usual permit reviews and SIP actions, the AQB has expanded its modeling commitments to fully support CenRAP modeling objectives. The volunteer modeling of Title V sources with "actual" and "permitted" emissions is commendable. This modeling has identified areas where additional modeling, and/or reduction of emissions, may be required.

The modeling group should be more involved in evaluating construction permits. The guideline that the permitting group uses to determine if a permit requires review by the modeling staff may not always protect the NAAQS. The guideline uses property boundaries, rather than physical barriers, as the critical distances to determine significant impact. Specific modeling for potential downwash situations is not always done. It is essential that all evaluations consider ambient air as areas where the public has excess. This means that a physical barrier, and/or a surveillance procedure, that prevents the public from entering a facility is required if the predicted concentrations are above NAAQS.

Small Business Assistance Program (SBAP)

On July 24, 2001, Heather Hamilton, Environmental Protection Agency Region 7, met with Wendy Walker, Small Business Air Quality Liaison, and Sharon Timmons, Regulatory Assistance Coordinator. The meeting took place in Des Moines, Iowa, from 10:30 a.m. to 12:30 p.m.

After obtaining an overview of the basic structure of the program, three areas were reviewed in detail. They included Ombudsman and Compliance Advisory Panel appointments and duties, outreach, and financial eligibility.

With respect to Ombudsman Compliance Advisory Panel appointments and duties, discussions revealed that the Ombudsman position was vacant for four months, but Ms. Walker's previous work experience has resulted in the program being brought "up-to-speed" in a very short time. The annual report for the year 2000, which is due to the EPA in March, was delayed as a result of the four-month vacancy. The Compliance Advisory Panel (CAP) appointments (four members selected by legislatures), are delinquent by seven years.

With respect to outreach, the SBAP uses various outreach techniques from on-site visits to seminars to reach small business entities. A notable achievement is the recent update of "Iowa Environmental Facts." These fact sheets have been completed in a format that can be easily

understood and covers numerous topics to assist small business entities. The contract for "needs assessments" which should be in place this fall should further enhance the outreach efforts of the SBAP.

In addition, the IWRC performs technical assistance to permit applicants. Technical assistance includes help in completing the application, assistance in understanding the requirements, or performing on-site visits. Upon completion of the application, it is then forwarded to the IDNR for a thorough review.

With regard to financial eligibility, the SBAP has not established a standard method for ascertaining the eligibility of small businesses for assistance. Eligibility is typically determined on a case-by-case basis during on-site visits. In spite of the lack of a protocol, no misuse of the eligibility rule was identified during our review.

Permitting

The records indicate that the bureau has an experienced and well-trained construction permitting staff the individuals of which appear to fully understand in-house policy. Standardization, order, and the consistency of reviews appears to be an accomplished goal as reflected by the use of templates, checklists, and by organization of the bureau's files. It also appears the staff has access to current technical/regulatory resources rather than having to make do with outdated documents. Areas that should be considered for improvement are better documentation of the overall extent of the staff's review efforts and the increased application, regarding each minor project, of NAAQS-impact assessments and of pre-permitting public participation (the latter especially so regarding each project to be synthetic minored). Also, we strongly suggest that certain in-house policies be reevaluated and rescinded for reasons discussed below.

Compliance and Enforcement

A partial audit of the IDNR Air Compliance and Enforcement program was conducted by the EPA Region 7 (R7) on July 24-27, 2001. The audit concentrated on areas needing improvement identified in a 1999 audit. Several of the areas identified in the earlier audit were found to have been corrected during the 2001 audit. Other areas will be addressed in the near future with implementation of the Compliance and Enforcement Module of the SPARS data system in the Fall-Winter of 2001-2002. New areas and old areas identified as still needing improvement included the categories Designation of High Priority Violators, Timeliness of Enforcement Response for HPVs, Compliance Assistance Section (CAS) Tracking of Excess Emission Reports, and File Content. Overall, the audit team concluded that the IDNR had a very good air compliance and enforcement program. This is essentially the same conclusion that was reached in the 1999 audit.

Asbestos

The AQB of the IDNR implements a fully delegated Asbestos NESHAP program pursuant to 40 C.F.R. Part 61, Subpart M. The program is responsible for notifications, inspections, enforcement case development, outreach, and data management. Given the limited resources devoted to the program, the level of effort is commendable. The AQB exercises common sense and good judgement in prioritizing inspections and pursuing enforcement actions. The AQB asbestos files are well indexed and organized, and include adequate documentation to support enforcement actions. The EPA hopes that the IDNR will consider developing a SPARS interface which is compatible with the EPA's national asbestos database.

Monitoring

The IDNR is responsible for conducting the ambient air monitoring program throughout the state of Iowa. This program includes a State and Local Air Monitoring Station (SLAMS) network of air monitors consisting of particulate matter-10 micron (PM_{10}), particulate matter-2.5 micron ($PM_{2.5}$), sulfur dioxide (SO_2), ozone (O_3) and carbon monoxide (CO). This network is designed to meet the EPA siting regulations and is reviewed annually.

All of the monitors and the laboratory analytical procedures being utilized in this SLAMS network are EPA designated reference or equivalent methods. The certification of the standard materials used to calibrate and audit the monitoring systems are present and properly documented.

The agency's standard operating procedures (SOP) are acceptable as is the QAPP for the overall operation of the air program. The IDNR's data completeness has historically been good for all monitored pollutants.

Title V Fees

The EPA submitted a set of questions to the IDNR concerning the Title V fee revenue, expenditures, and the accounting system. The Iowa Air program provided a detail response to the questions prior to the Title V fee review. During the on-site review, the IDNR staff provided an extensive overview of the Title V fee collection and accounting processes.

Overall, the IDNR does an excellent job of administering the Title V fee program. The Department's accounting procedures allow for the tracking of direct and indirect costs associated with the Title V program as well as non-Title V activities in extraordinary detail. However, the Department maintains no documentation related to the budgeting process. We strongly recommend that the state develop and maintain records outlining the annual budgeting process used to determine which costs are eligible for reimbursement through the Title V program and the rationale for all budget decisions. Maintaining such documentation is important to minimizing the Department's vulnerability during an audit situation.

Section 2

Introduction

Introduction

Purpose

Many governmental and nongovernmental entities are responsible for ensuring environmental protection throughout the nation. The majority of environmental programs are carried out through the shared responsibility of the EPA and its non-Federal partners.

In Region 7, the EPA has delegated a large share of its authority to the states. After delegation, the EPA maintains responsibility for delegated programs and continues to be accountable for progress toward meeting national environmental goals and for ensuring that Federal statues are fulfilled. The EPA is responsible to ensure the fair and equitable application and enforcement of Federal environmental laws, regulations, and standards, and to provide its partners with the necessary assistance, tools, methods, and back-up support to solve environmental problems.

In delegated programs, the goal of oversight is to strengthen the relationship between the EPA and its partners to ensure that the national environmental goals expressed in the EPA Strategic Plan are attained. Effective oversight helps to ensure adequate environmental protection through continued development and enforcement of national standards, and the use of direct enforcement action against polluters as necessary to reinforce the action and authority of the EPA's partners. Oversight also helps to enhance a partner's capabilities to administer sound environmental protection programs through increased communication and a combination of support and evaluation activities. Finally, Federal oversight seeks to describe and analyze the status of national and regional environmental quality, through continued collection and distribution of information from governmental agencies and other major sources. The EPA is fully committed to the success of its partners' environmental programs. A clear expectation for program performance is a crucial factor in achieving an effective partnership.

Fostering quality delegated programs is not a static activity, and will vary across the different delegated entities. Conditions change, and program activities must change to respond to new environmental problems and challenges. Consequently, the methods used to oversee delegated programs must change over time, depending on the maturity and complexity of national programs and on the capability of the EPA's delegated partners.

Process

The 1984 "EPA Policy on Oversight of Delegated Environmental Programs" provides the foundation for structuring a Program Review. Starting with this policy, EPA Region 7 staff developed a *Program Review Protocol* document, which provides the justification and framework for conducting program reviews in the Air, RCRA, and Toxics Division (ARTD) of Region 7.

The protocol establishes a minimum frequency for conducting program reviews within

the Division, defines the scope of full and partial reviews within each program, and provides a consistent basis for determining which type of review is appropriate. The protocol also provides a way to document the rationale for determining whether or not any program review effort is needed in a particular program. In addition, the protocol includes a summary of the regulatory requirements for the major programs within ARTD, a discussion of oversight policy, and a differentiation between the requirements of grant close-out reviews and program reviews.

The ARTD staff subsequently issued a second document, *Operating Principles for Conducting Program Reviews*. This is primarily an internal planning document which lays out the process for providing consistent internal procedures for Program Reviews.

Finally, the EPA staff developed the *Program Review Criteria Notebook*, which was used as the basis for the Iowa Air Program review. This notebook contains the criteria and checklist for each of the program areas, i.e., modeling, monitoring, permitting, enforcement, etc., being reviewed. This notebook was provided to all of Region 7's state partners in January 2000.

Prior to 2000, the ARTD staff had conducted partial program reviews in other Region 7 states. The New Source Review and Title V permitting programs had been reviewed in three states, and the air permitting and compliance programs had been reviewed in two states. Two local agency programs had also been reviewed.

As stated in the Program Review Protocol, Region 7 plans to conduct a program review in each state once every four years. The Missouri Department of Natural Resources' Air Pollution Control Program was the first air program in Region 7 state to be reviewed under the new protocol. The Iowa Air Program is the second review to be completed.

Procedure

The EPA team leader for the Program Review coordinated with the IDNR primary contact person in June 2001, to select a mutually agreeable date for the review. Considerable lead time was necessary considering the number of staff involved in both agencies. The week of July 24, 2001, was selected as the time for the on-site visit by the EPA staff. On June 14, 2001, the EPA provided the IDNR a 'kick-off' letter (copy in Appendix A) which contained a detailed schedule for the week of July 24, provided certain checklist information, requested that the air program respond to several prereview questionnaires, and listed a schedule for completion of the draft and final reports. The EPA received all requested information on July 12, 2001, ahead of schedule. Although the stated goal in the *Operating Principles* document is to provide the state a final report within 90 days of completion of the on-site review, a combination of higher priority Iowa projects and reduced staff availability precluded completion of the report on the desired schedule.

The EPA staff initiated the on-site review by conducting an Entrance Conference (see Appendix A—Attendees List). This meeting provided the opportunity for the EPA to discuss its schedule for the week, identified AQB staff the EPA needed to interview, provided the state staff

the opportunity to present preliminary questions to the EPA, covered the use of AQB facilities and equipment, and set a time for the Exit Conference.

The EPA staff was on-site for three full days. The Exit Conference consisted of the EPA staff providing a verbal summary of their results. The AQB staff provided additional information as necessary for clarification, as well as closing remarks (see Appendix A—Attendees List).

The EPA staff received the full cooperation and assistance of the AQB staff throughout the on-site visit. Supervisors and individual staff members made themselves available as necessary to answer questions or to otherwise assist the EPA staff. The EPA fully appreciates this assistance and spirit of cooperation.

During both the entrance and exit conferences the AQB staff emphasized their goal was to provide the highest level of environmental protection to the resources and citizens of Iowa, and that any recommendations that the EPA might have as a result of the program review would be welcomed.

APPENDIX A

EPA Kick-Off Letter, June 24, 2001

List of Entrance Conference Attendees

List of Exit Conference Attendees

Section 3

Planning

Planning

Introduction

The areas of review in this section include:

- Regulatory Development
- Emission Inventory
- Grant and Work plan Management
- Local Agency Coordination
- Training
- Modeling
- SBAP

The EPA specialists interviewed their counterpart AQB program specialists at their offices in Urbandale. The SBAP information was gathered through an interview conducted at the SBAP offices in Des Moines. The remaining information was gathered during the on-site visit by the EPA APDB Iowa coordinator during interviews with the AQB Chief, Pete Hamlin, and Catharine Fitzsimmons, Program Development Section Supervisor.

A detailed organizational chart can be found in Appendix B. The general organizational structure is as follows:

Iowa Department of Natural Resources
Environmental Protection Division
Air Quality Bureau
Inventory Compliance and Monitoring Section
Construction Permits Section
Operating Permits Section
Program Development Section
Support Section

Air Quality Planning primarily occurs within the Program Development Section which is subdivided into three units: Dispersion Modeling, Regional Modeling, and Program Development. There are presently fourteen positions assigned to the section: a supervisor, twelve technical positions, and one intern position. Their duties include, but are not limited to, performing, multiscale meteorological and dispersion modeling analyses, animal feeding operation emissions characterizations, rule development, SIP development, and special projects. The intern and two technical positions were vacant at the time of the program review and will not be filled due to current budget constraints.

In addition to the Headquarters' staff in Urbandale, there are six field offices geographically dispersed throughout the state. These offices do not participate substantially in planning activities, but primarily respond to citizens complaints and conduct inspections of air

emission sources. A map showing the location of these offices is included in the Appendix B. There are also two local agency air programs respectively located in Polk and Linn Counties. These programs administer area-specific rules that complement the state's air pollution control rules.

The AQB does not directly adopt air pollution control rules. As prescribed in section 455A.6 of the Iowa Code, rule adoption is carried out by the Environmental Protection Commission (EPC). The EPC consists of nine members appointed by the Governor for staggered terms of four years. Three members must be actively engaged in livestock and grain farming. One member must be engaged in the business of finance or commerce. Another must be engaged in the management of a manufacturing company. The final four must be electors of the state. Commission appointees are subject to senate confirmation. Rules are generally presented to the EPC for purposes during the adoption process. The first presentation is for informational purposes only. The second presentation includes a Notice of Intended Action. The final presentation includes a notice of filing.

In addition to rule adoption, the EPC is responsible for setting EPD policy, hearing appeals in contested cases, approving/disapproving contracts, and approving the Title V budget. The EPC meets on a monthly basis. A list of the current EPC members is included in the Appendix B.

Regulatory Development

The scope of the regulatory development portion of the review centered around the following questions.

1. Does the program have a standard technical development and review process for developing regulations? Is this process clearly stated in a written policy or checklist?

2. Does the program have a standard administrative process for promulgating new regulations and regulatory revisions? Is this process clearly stated in a written policy or checklist?

3. Does the program have a process to track the progress of rule actions from start to finish?

4. Is the program aware of the Federal technical and administrative requirements which apply to the program in the development of the following rule actions?

- SIP Revisions
- Updates for NSPS, NESHAP, and MACT Delegations
- Title V Program Revisions
- 111 (d) Plans

5. Does the program have a copy of the Federal requirements which pertain to the above submissions/delegations or does the program know where to find these requirements?

6. Do the program technical and administrative rule development processes meet the applicable Federal requirements?

7. Does the program submit timely rule actions which meet Federal deadlines? Do these submissions contain the required supporting documentation?

These questions are intended to facilitate an evaluation of the AQB's technical and administrative processes and the level of adherence to bureau procedures and Federal policies and regulations. These and other review-related questions were provided to the AQB approximately one month in advance of the on-site review. The bureau's responses can be found in Appendix B.

With respect to the technical development of rule amendments and new rules, the Department utilizes a Rule Recommendation Request Form which asks for detailed information regarding the purpose of the potential rule change, its impacts, applicable authorities, and likely public comments. However, little technical guidance is provided to staff with regard to how to develop answers to the questions at hand or the level of detail that may be necessary to facilitate SIP development. The lack of such guidance sometimes leads to delays in SIP processing/approval and occasionally presents difficulties in circumstances when the state must respond to comments received during the rule adoption process.

With respect to SIP processing delays, most result from missing or insufficiently comprehensive information. Such delays could be minimized by providing the AQB staff with additional guidance materials and increasing communications with the EPA prior to and during the rule and SIP development processes. During discussions with the AQB staff, the EPA offered to assist in the development of such materials and explore opportunities for more or enhanced EPA training in these areas. The AQB staff agreed to consider the possibilities and provide the EPA with specific suggestions.

Developing standard procedures and better defining the scope of work that must be completed to support rule actions would also enhance the state's credibility with the industrial community, the state legislature, and the general public. Federal regulations require that public participation be an element of the state's rule adoption process. Occasionally and appropriately so, rules are subject to challenge during the adoption process. In some instances, those challenging the rule action claim they will suffer drastic adverse impacts. In such cases, the state must respond to criticism and/or refute these claims and must do so within specific time frames mandated by the state's rule adoption process. Comprehensive and rigorously applied guidance would ensure consistency in the rule development process, adequate consideration of the impacts, and better position the state to defend and maintain its position when actions are challenged.

With respect to administrative procedures, the AQB relies on multiple mechanisms to define the process for promulgating new rules and tracking the status of rules in progress. They

include a procedures protocol, a rule status tracking table, the Iowa Administrative Procedures Act, the IDNR Air Quality EPC Actions Database, and special reports. All contain highly detailed instructions. Collectively, these mechanisms appear to cover all of the applicable steps. However there are at least some steps that are addressed in one, but not the other, which could lead to an oversight or omission of such steps. For example, the protocol document does not include sending the EPA copies of the Notice of Intended Action and proposed rule changes while the table/tracking sheet does. Conversely, the protocol includes the submittal of SIP revisions to the EPA while the table/tracking sheet does not. The EPA recommends that these documents be reviewed and revised to achieve consistency and completeness. We recommend that consolidation be considered as a means to improve their effectiveness.

The EPC Actions Data Base will be particularly helpful to the EPA in instances where establishing rule history is important. Had we been aware of the data base, we could have requested the history of the state's Title V regulations which would have facilitated the processing of a backlog of Title V rule revisions. It may not have been necessary for Iowa to submit a global revision to the state's Title V rules. The available rule histories will also facilitate the updating of the EPA's SIP rulebooks.

Emission Inventory

A technically defensible emissions inventory serves as the foundation of sound public policy. Prior to the year 2000, the IDNR had been collecting emissions information from Title V point sources, but did not include statewide emissions from Area, Biogenic, Mobile, or Non-road mobile sources. Currently, the IDNR has a renewed commitment to provide a comprehensive statewide emissions inventory for all source categories. Once completed, the inventory will greatly improve the ability of the department to derive technically defensible control strategies within the state.

An Inventory Preparation Plan (IPP) should include inventory objectives and general procedures as well as provide a description of how the inventory preparer will present and document the inventory. Iowa prepared an IPP for Scott County for the emissions year 1999. The objective was to develop a plan that could serve as a blueprint document that could later be applied to the entire state. This document now serves as the IPP for the effort currently underway to inventory the entire state.

EIQs are received from point sources on an annual basis and are charged fees based on the amounts certain pollutants are emitted. For the emission year 2000, the IDNR for the first time mailed EIQs to a select number of stationary sources referred to as Minor point sources, or also known as Area sources by the EPA's definition. Area sources are facilities or activities whose individual emissions do not qualify them as Point sources. For purposes of this report, these sources will be referred to as Minor sources. Due to the relatively large number of Minor sources, the department has decided to collect from those sources located in the eastern one-third of the state, with plans on inventorying the remaining two thirds within the next two years.

The IDNR anticipated the need to provide assistance to the Minor source facilities in filling out the EIQ. To minimize the burden on the facilities, the department compiled and sent an easy-to-read booklet that contains clear and concise examples on how to fill out the questionnaire. To further facilitate the process, the IDNR also funded the Iowa Waste Reduction Center at the University of Northern Iowa to provide free assistance to small businesses with less than 100 employees. Larger facilities were encouraged to contact the IDNR staff directly.

It is critical that the Point and Minor source EIQs contain all the necessary data elements required for use in multiscale modeling. To ensure that all the necessary information would be obtained, the staff reviewed a recent draft publication of the Consolidated Emission Reporting Rule and included in their EIQs all the required information. This draft rule listed all the required data elements needed from a stationary source for use in a variety of photochemical and dispersion models.

The department will also be responsible for providing estimates for other Area source categories, including dry cleaners, gas stations, auto repair shops, etc. The Emission Inventory Improvement Program volume series have been jointly developed by state and EPA officials, and are recommended for use in characterizing emissions from these sources. The IDNR consulted these documents in determining the most recommended and resource responsible method for each source classification within this source category.

A 1999 Mobile Source Emission Inventory Plan was also prepared for Mobile sources, both on-road and non-road. As with the Minor sources, the IDNR is planning on inventorying this category by thirds, from east to west, with the complete state being inventoried for all categories by 2004.

The Biogenic emission inventory has not been updated. This is not an issue for the state of Iowa as well as most other states. The OAQPS will be running the BEIS model for all states. It is assumed that land use data are relatively static and that only negligible differences would exist between the state's results and EPA's.

Documentation/Data Entry/QC

The IDNR is currently in the process of updating to a new database system. They have contracted with Windsor Technologies to develop SPARS. Once fully functional, SPARS will streamline a variety of tasks, including the updating of annual emissions inventory submittals. Sources will then have the option of filing out the EIQ forms electronically without having to send in a hard copy.

The current Point source inventory exists in hard copy only and is placed in a chronological filing system organized by facility. The emission inventory staff is currently receiving EIQs from Minor sources located in the eastern third of the state. The IDNR anticipates placing the existing Point sources and future Minor source emissions inventory into the SPARS data base, once the inventory portion is operational.

When an EIQ is received it is distributed to one of four individuals working in the emissions inventory unit. This person follows an extensive review checklist that has been provided to each member. Some of the important quality assurance procedures include verifying emission factors, hand calculating emission estimates, and ensuring all known pollutants are included with the emission unit. Wherever possible, the staff make corrections as needed on the EIQ forms, unless the error(s) requires making contact with the facility. Phone conversations with facilities are documented in individual notebooks kept by each unit member. Once reviewed, the EIQ is then forwarded to the emission inventory unit leader for further review. This step in the process ensures that all of the QA procedures were followed by the first reviewer. During the audit, a portion of the quality-assured EIQ forms were reviewed by the EPA and the reviewer determined that all the forms were filled out correctly and the proper QA protocol had been followed.

During the fiscal year 2002, the IDNR has also agreed to develop a QAPP for the development of its emission inventories. Not only will this fulfill a critical grant eligibility requirement, it will formalize the ongoing QA/QC activities currently underway and will go farther in ensuring that the final product is representative, accurate, and comprehensive.

Emissions Reporting and Submission

The EPA encourages states to submit their Criteria and Toxics emissions inventories to the NEI in the OAQPS. Current effort is underway to inventory all state and local 1999 inventories. Iowa is one of the only remaining states that has not provided an inventory to date. Initially, the IDNR had planned on submitting statewide Point source emissions to the NEI by the June 1, 2001, deadline. However, due to contractual problems with the development of SPARS, the emission inventory data system has not been completed. Agencies who were unable to submit data to the NEI by the date will be given another opportunity to submit by the following June 1, 2002.

The IDNR is planning on having the statewide major Point sources placed into the SPARS system and then uploaded to the NEI by June 1, 2002, for the emission year 1999. Minor, Area, On-road, and Non-road mobile sources will not be reported to the NEI until the entire state has been completely inventoried. In order to ensure data exist for regional modeling, the OAQPS will place default emissions into the NEI for the source categories that the IDNR fails to submit.

Personnel Training and Resources

Each staff member has their own workspace with access to the internet. While reviewing incoming EIQs, the staff utilizes the most current online editions of AP-42 and EIIP volumes.

Individual interviews were held with each member of the emission inventory unit. All members felt they had been adequately trained and had been provided all the necessary tools in order to do their jobs effectively. A training plan has been developed for new employees joining the unit. This plan provides an excellent educational background for emission inventory work. The plan makes good use of the APTI course work and allows for close interaction with the team leader. Also, all members were able to attend the annual NEI Conference that was held in Denver, Colorado, in 2001. This conference is one of the only opportunities for free training in the realm of emissions inventories. It is hoped the IDNR will continue to provide the support needed to send their inventory staff to future conferences.

Computer System Review

As previously discussed, no inventories can be reported to the EPA until SPARS is able to accept the information into the data base. Once this is accomplished the new system should provide a powerful tool for a variety of planning purposes. Once EIQs are entered into the system, all modifications made thereafter are documented in a data log that identifies the person making the change and the date and time it took place. For certain parameters, error messages are given if the value falls outside the acceptable range. The department was unable to provide information as to which parameters contained this added QA check. A separate quality review questionnaire was completed for the new computer system and a demonstration was provided by the department. It was found that system backups and data storage as well as software management were all found to be properly addressed.

Other Recommendations

1. $PM_{2.5}$ and NH_3 should be included on the EIQs to facilitate regional haze analyses.

2. Hazardous air pollutants (HAP) reported as groups should be speciated in order to facilitate a complete assessment of the toxic properties of emissions.

3. Upon evaluation of a submitted inventory, the EPA will provide a cross-reference table revealing which facilities have large discrepancies relative to Toxic Release Inventory data. It is recommended that this resource be utilized as a quality assurance tool to facilitate any appropriate inventory corrections.

4. When available, MOBILE6 should be run for the entire state in order to compare with the NEI version created for Iowa by the EPA. Any discrepancies should be addressed.

5. SPARS should be enhanced such that it is capable of providing data output in the NEI 2.0

format. Furthermore, the IDNR should provide for a maintenance contract or alternative mechanism to ensure that SPARS is revised as necessary to maintain compatibility with the NEI format.

Grant and Work Plan Management

The grant and work plan management portion of the program review focused on the full range of activities associated with a work plan cycle. Some examples include the development of work plan commitments, project tracking, funds management, and closeout. Similar to other portions of the review, the EPA provided a prereview questionnaire for the state's response. The complete questionnaire and the state's responses can be found in Appendix B. The following set of questions laid the foundation for the on-site review:

1. How are state priorities balanced against those highlighted in the EPA's grant kick off letter?

2. Is the state aware of the EPA's GPRA commitments and, if so, is this considered in determining grant work plan commitments?

3. How are work plan commitments adjusted to mesh with section 105 funds available?

4. Does the state have an annual planning process for determining priority work activities? If so, are the EPA priorities also considered?

5. Does the state have a separate work plan for activities not covered by the section 105 grant work plan? If so, how are these activities tracked?

6. How does the state determine which activities will be funded by the EPA grant as opposed to state funds?

7. What problems (planning, budget, etc.,) are created since the state's fiscal year is different from the Federal grant year? Do you have any suggestions for the EPA to minimize these problems?

8. How are workyear needs determined? Does the state use a matrix for determining workyear requirements based on workplan activities and commitments? Or, are commitments limited to fit the workyears available?

9. What is the state process for seeking an increase in its state authorized budget and workyear ceilings? Does the state have any recommendations in which the EPA can support the program's need for additional funds and personnel?

Each grant cycle begins with the EPA sending the state a "kick off" letter initiating the grant negotiation process. These letters indicate the expected award for the coming year,

highlight any significant changes in the Federal budget, and highlight any areas of special emphasis. The AQB staff expressed a desire to expand the scope of existing activities and a willingness to invest in additional air quality management activities, but feel constrained by the need to address "core activities" in the face and shrinking staff and financial resources. Work plan negotiations are highly driven by this viewpoint. Resource limitations are the major issue affecting the bureau's ability to expand the list of current priorities. FTE ceilings and increasing pressure to reduce the use of contractual employees have resulted in an unstable environment which is not conducive to any changes in focus. However, the EPA believes a periodic review of environmental priorities and "core activities" is critical to the maintenance of good air quality. The EPA believes that revisiting the process by which the work plan is negotiated may be a reasonable first step with the goal of increasing the effectiveness of core activities to allow the consideration of additional commitments. The EPA encourages the AQB to explore areas that may be ripe for disinvestment and opportunities to accomplish environmental objectives through partnerships.

Work plan commitments are generally accomplished as delineated in the work plan although there are occasionally projects that fall significantly behind schedule, e.g., the Mason City and Davenport PM_{10} SIPs. The program is very well managed and effectively performs what it views are its core duties which include SIP management, permitting, monitoring, and responding to "hot issues." Internal audits are performed to ensure QMP and applicable QAPPs are appropriately implemented, although it was noted that QMP/QAPP oversight had recently transitioned to a new staff member. It was unclear whether the new staff person was ensuring that QMPs and QAPPs are appropriately distributed when they are updated or when employee turnover occurs. Workload and staff resources are managed through the use of several tools including general staff meetings, weekly meetings with lead workers, weekly and monthly activity reports, time studies, and data base reports. While the AQB currently undertakes no program specific strategic planning, it does operate with the broad framework of the IDNR's Strategic Management Plan. To the bureau's credit, this does not appear to significantly hinder the bureau's ability to accomplish its objectives. During discussions about the bureau's planning efforts, staff emphasized that FTE ceilings and increasing pressure to reduce the use of contractual employees result in an unstable environment which is not conducive to major planning efforts. We encourage the AQB to expand its planning efforts in spite of these challenges. We recommend that the program inventory the work it does, and analyze the quality of that work in comparison to the value it generates for its customers and the environment. This would allow for appropriate adjustments as our environmental challenges grow while resources are shrinking. It may be necessary to reevaluate what activities constitute "core activities."

The financial aspects of the state's section 105 grant are extremely well managed. Air program expenses are primarily charged to one of two accounts, or "cost centers." However, some costs are charged to both accounts based on annually (state fiscal year) negotiated percentages. These costs are referred to as apportioned costs. Federal grant dollars and matching state funds are deposited in one account and managed as cost center 7220 dollars. Title V fees are deposited in a separate account and are managed as cost center 7230 dollars. Activity codes have been assigned to all tasks associated with each cost center. Staff utilize

detailed forms to ensure that time, travel, and training expenses are charged to the appropriate account. Examples can be found in Appendix B.

While the program's excellent accounting system minimizes its vulnerability in an audit situation, a few concerns were identified. These concerns relate to the bureau's process for determining which charges are eligible for payment from each cost center. Relying on EPA guidance materials and professional judgement, bureau staff prepare an itemized budget accounting for all projected direct and apportioned costs within each cost center each state fiscal year. These budgets are presented to the Iowa Association of Business and Industry (ABI) at which time its members can ask for clarification and request changes. The process works well and is an important part of building an environmentally beneficial relationship with the industrial community. However, other than preparing the final budget, the AQB does not presently document any details related to the decision-making process. This could lead to vulnerabilities which may result in the state having to return a portion or all of a Federal grant. Complicating matters, the Federal fiscal year spans portions of two state fiscal years. There are instances in which funding allocations for certain activities change significantly from one state fiscal year to another. For example, adjustments to apportioned costs are sometimes made. This presents some tracking and reporting challenges relative to the Federal fiscal year. The EPA recommends that the AQB begin documenting the rationale for cost center assignments, keeping AQB/ABI meeting minutes, and automating financial reporting capabilities relative to the Federal fiscal year.

Local Agency Coordination

The purpose of this portion of the program review was to assess the relationship with other state agency grantees and evaluate the level of oversight provided by the AQB. The following questions were posed in the form of a prereview questionnaire. The state's responses formed the basis for the review.

1. How does the state communicate and coordinate activities with the local agencies? Are routine meetings and/or conference calls held?

2. Are state priorities and commitments, and the EPA priorities, considered in the development of the local agency workplan? If so, how are they communicated to the local agency?

3. Does the state do an end-of-year review or annual audit of the local agency?

4. Does the state have routine meetings/conference calls with the local agencies?

5. How does the state ensure that the local agency updates its rules and maintains a current SIP?

6. Does the state evaluate the local agency budget and workyear allocations for adequacy

against the local agency workplan?

7. If the local agency receives state funds, how is the allocation determined?

8. Does the state offer comment to the EPA or the local agency on the amount of grant funds that the local agency should be entitled to, or is the status quo accepted?

The AQB and the local agencies negotiate and sign annual Letters of Agreement (LOA). The current LOA can be found in Appendix B. These LOA are extremely comprehensive. They delineate the responsibilities of both the IDNR and the local agency, define reporting requirements, and set forth conditions. Coordination is maintained through quarterly meetings, conference calls, e-mail, and other written correspondence. Some example communications are included in Appendix B.

Funding levels are based on the scope of the LOA. Expenditures are tracked through quarterly reports. Up to state fiscal year 2001, audits were performed annually. Audits are now performed biennially. In addition, the local programs are required to provide for third party audits. Audit reports are routinely shared with the EPA.

Rule updates are primarily coordinated through the terms of the LOA and quarterly meetings with some and consulting the Iowa Administrative Bulletin. Local agency rules are sometimes "out of sync" with the state's rules for lengthy periods of time. Most recently, a local agency did not fulfill Federal public participation requirements when revising several rules. The EPA communicated the oversight to the state and local agency has since met the requirement and resubmitted the rule changes as an amendment to the SIP. To minimize the amount of time local rules are inconsistent with the state's rules and avoid future oversights, the EPA recommends that the AQB take two actions. First, we recommend that the bureau's rule development protocols be amended to include local agency notification to provide early notification or perhaps even facilitate parallel rulemaking. Second, we recommend that the LOA include a requirement that local agencies develop a rulemaking protocol similar to the AQB's including a status tracking matrix. We further recommend that an updated tracking matrix be provided to the AQB on a regular basis.

The state's ability to provide adequate local agency oversight is an area which bears further monitoring. During the program review, the AQB staff indicated that local agency oversight may be reduced in the future given uncertainty with respect to the availability of contractor resources to assist with this task.

Training

This portion of the program review focused on AQB's training policies, budget, and adequacy. While no official training policy exists, each supervisor sets a training program for his/her team members. All desired training is provided. Funding appears to be adequate and expenditures are appropriately tracked. The EPA and AQB staff identified a number of areas where enhanced training is desirable. Options included CAA orientations, permitting orientations, emissions inventory training, GPRA, P2, NAAQS, SIPs, and QAPPs. Staff agreed to contemplate these possibilities and others and provide suggestions to the EPA.

Modeling

The AQB is fortunate to have dedicated and knowledgable people in its modeling group. They are all doing an excellent job in evaluating and performing air quality analyses. In addition to the usual permit reviews and SIP actions, the AQB has expanded its modeling commitments to fully support CENRAP modeling objectives. The volunteer modeling of Title V sources with "actual" and "permitted" emissions is commendable. This modeling has identified areas where additional modeling, and/or reduction of emissions, may be required. The group has been very responsive to requests from Region 7 for information on modeling evaluations and meteorological data.

The modeling staff does not always review construction permits. The guideline that the permitting group uses to determine if a permit requires review by the modeling staff may not always protect the NAAQS. The guideline uses property boundaries, rather than physical barriers, as the critical distances to determine significant impact. Specific modeling for potential downwash situations is not always done. It is essential that all evaluations consider ambient air as areas where the public has excess. This means that a physical barrier, and/or a surveillance procedure, that prevents the public from entering a facility is required if the predicted concentrations are above NAAQS.

In Appendix B there is an example of where PM_{10} exceedances may occur because an air construction permit application was not analyzed for air quality impact. The EPA Screen3 model was used. The results were 1-hour predicted concentrations of about 4121 micrograms per cubic meter ($\mu g/m^3$) in the cavity and about 986 $\mu g/m^3$ at 274 meters, or about 246 $\mu g/m^3$ to over 1600 $\mu g/m^3$ for 24 hours. Refined modeling must be done to fully evaluate the facility.

The modeling group should be more involved in evaluating construction permits.

SBAP

On July 24, 2001, Wendy Walker, Small Business Air Quality Liaison, and Sharon Timmons, Regulatory Assistance Coordinator, met with Heather Hamilton, EPA Region 7. The meeting took place in Des Moines, Iowa, from 10:30-12:30.

Program Structure

The Small Business Air Quality Liaison Program was established in October 1995 and is located in the Iowa Department of Economic Development (IDED). One FTE has been established to fulfill the duties of this position. The Liaison is Wendy Walker, who started this position on July 6, 2001; her direct supervisor is Sharon Timmons. The Liaison is also referred to as the Ombudsman in this report.

The IDNR and IDED have a Memorandum of Agreement for the Liaison position. A list of the Liaison's duties can be found in Appendix B.

The IDNR contracts with the Iowa Waste Reduction Center (IRWC) at the University of Iowa, Cedar Falls, Iowa, to conduct the SBAP. The Iowa Air Emissions Assistance Program (IAEAP) conducts technical assistance and outreach to small businesses in Iowa.

A. Ombudsman and Compliance Advisory Panel Appointments and Duties

Are the ombudsman and Compliance Advisory Panel Appointments (CAP) positions filled in accordance with Section 507(a) of the CAA?

Program Response: *The ombudsman position has been filled in accordance with Section 507(a) of the CAA. The position is located with IDED in the regulatory assistance team. The CAP positions have been partially appointed. The DNR is working with IDED and the state legislature to complete the appointments.*

Findings: The CAP should consist of two members selected by the Governor (not small business owners), four members selected by legislatures (small business owners), and one member selected by the head of Agency.

The vacant positions are the four members that are selected by legislature. Several requests to select the remaining CAP members have been forwarded to the legislature. Copies of these requests can be found in Appendix B. To date, these four appointments have not been made.

The state of Iowa made a commitment to have these positions filled by November 15, 1994. The Iowa General Assembly is delinquent by seven years. Realizing this is a political issue, EPA Headquarters established a National CAP with one of the many purposes being to assist states where CAPs do not exist or are weak. Some National CAP materials have been included in Appendix B.

Recommendations: While the appointment of a National CAP may be the interim solution, it would behoove the state of Iowa to appoint the remaining CAP members to protect and enhance the interests of the citizens of Iowa. The issues of the CAP positions needs to be elevated and addressed with the proper political entities.

Does the Ombudsman have direct access to state agencies and officials to relay concerns of small businesses?

Program Response: *The Ombudsman does have direct access to state agencies and officials. The DNR and IDED have created an efficient protocol to effectively deliver concerns to the appropriate state agencies and officials.*

Findings: When the need arises, Ms. Walker consults with her direct supervisor and then the IDED Liaison is consulted. The IDED Liaison deals directly with the Liaison in the Governor's office.

Does the Ombudsman have authority and access to obtain data from state agencies?

Program Response: *Yes, the Ombudsman does have authority and access to obtain data from state agencies.*

Findings: No comments.

Have sufficient resources been provided to successfully fulfill Ombudsman/SBAP responsibilities?

Program Response: *Both the Ombudsman and SBAP are successful programs and are fully funded. The Ombudsman will be conducting roundtable discussions to investigate better methods to assist Iowa's small businesses. The SBAP program is located at the University of Northern Iowa's Waste Reduction Center (IWRC). The SBAP program, along with other programs at the IWRC have been nationally recognized for their excellence.*

Findings: By Fall 2001 (projected), a contract will be in place for "needs assessment." A request for proposals can be found in Appendix B. This contract will establish a survey mechanism to report the following: effective ways for communicating with small businesses; strategic opportunities to market information to small businesses; knowledge of air quality regulations that apply to their business; communication mechanisms from states and Federal agencies; and technical needs for compliance. The duration of the contract is expected to be six months.

When the results of the survey are completed, marketing strategies will be developed for the needs that "rise to the top."

It was noted that the IDNR will be funding this contract and it has been very accommodating in meeting the financial needs of the SBAP program. Furthermore, the SBAP enjoys the "open door" policy that the IDNR provides.

Has the CAP rendered any opinions on the effectiveness of the SBAP effectiveness?

Program Response: *The CAP has not been fully appointed and therefore, has not met to render opinions on the SBAP's effectiveness.*

Findings: No comments.

Have any reports been submitted to the EPA's Small Business Ombudsman?

Findings: Because the SBAP Liaison position was vacant from February to July 2001, the report that was due in March for the year 2000 is delinquent. Every effort is being made to submit the report at the earliest possible date. Currently, the Liaison and the SBAP are processing data to complete the report.

The copy of the 1999 annual report is included in Appendix B.

B. What outreach techniques are currently used by the SBAP (seminars, Internet, etc.)?

Program Response: *The SBAP uses workshops, seminars, site visits and the Internet as outreach techniques.*

Findings: In 2000, 70 IAEAP on-site visits were performed. The IWRC web site is frequently visited and it was noted that there are also international requests made as well.

The SBAP staff attends public meetings as needed and/or required by subject matter. Such meetings are the Client Contact Committee, the Administrative Rules Review Board, and the Environmental Protection Commission.

The SBAP has a toll-free number for customer assistance; however, Ms. Walker indicated that the Liaison's number is in receipt of numerous multimedia calls which she refers to the appropriate person or program.

It was noted that the persons on the EPA's Small Business Ombudsman web site are not correct. Ms. Walker made a request for the site to be updated. Ms. Hamilton is checking with EPA Headquarters to see when they intend to make the changes.

Ms. Walker provided a brochure, which is currently being updated. In addition, "Iowa Environmental Facts" have recently been updated. These fact sheets have been completed in a format that can be easily understood and covers numerous topics to assist small business owners. The fact sheets will be mailed out to approximately 2,000 entities this fall. Copies of the revised fact sheets can be found in Appendix B.

SBAP staff and the Liaison visit seminars, trade shows, and conventions that would benefit from the SBO/SBAP knowledge on an "as-needed" basis.

The Liaison indicated that their most useful outreach tool will be determined from the upcoming needs assessment survey.

Does the SBAP coordinate with the other programs, state, etc.?

Program Response: *The SBAP does coordinate seminars and workshops with DNR, IDED and other state's SBAP programs.*

Findings: No comments.

Describe how well the SBAP provides compliance assistance to identify applicable requirements and obtain appropriate permits.

Program Response: *The SBAP adequately provides compliance assistance in identifying requirements and in obtaining appropriate permits.*

Findings: A potential permittee is assisted by IWRC based upon their needs. For instance, they may need assistance in completing the permit application, assistance in understanding the requirements, or they may need an on-site visit to determine what their needs are—if any. It should be emphasized that the IWRC provides assistance only. Upon completion of the permit application, the permittee signs the application and it is thoroughly reviewed by the IDNR Construction Permits section (Branch Manager, Dave Phelps). The organization representative is also required to sign a

"Client Waiver" that includes the following language:

> "*The opinions given by the IAEAP may or may not be shared by the IDNR. The advice given by the IAEAP does not prevent or protect the client(s) from enforcement action. The IDNR is the final authority in the State of Iowa on compliance issues regarding air quality statutes and rules enforced by the State of Iowa."*

The average turnaround time for permit approval is 30-45 days. To further assist the permittee, the IDNR has a link to SPARS which the permittee can access to check the status of a pending permit.

- **Financial eligibility**

Has the method been established for ascertaining the eligibility of small businesses to receive assistance under the SBAP?

Program Response: *The SBAP assists small business station sources as defined by Sec. 507 (c)(1) of CAAA: is owned or operated by a person that employs 100 or fewer individuals; is a small business concern as defined in the Small Business Act; is not a major stationary source; does not emit 50 tons or more per year of any regulated pollutant; and emits less than 75 tons per year of all regulated pollutants.*

Findings: The SBAP does not feel the need to establish a method. To date, they have had no misuse of the eligibility rule. Furthermore, when the IWRC conducts an on-site visit, they determine eligibility on their worksheet.

What mechanism exists to exclude sources with sufficient financial and technical resources to meet their obligations?

Program Response: *No mechanisms are in place to exclude companies that have sufficient financial and technical resources. However, assistance is not provided to major stationary sources or to consultants.*

Finding: The state of Iowa has elected not to provide for exclusion.

APPENDIX B

Organizational Chart

Planning and Development Questionnaire/Response

Title V Fee Guidance

Budget Documents

Time and Travel Documents

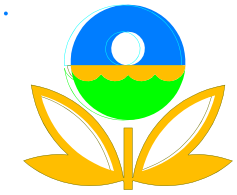
Linn County, Polk County, and UHL Financial Agreements

Project Officer Financial Review

List of Equipment Purchases

Local Agency Coordination Documents

SBAP Review Documents



Section 4

Permitting

Permitting

The following permit files were examined during the course of the EPA's review.

	Source	Location	Facility ID	Projects Reviewed
1	Ag Processing	Emmetsburg	74-01-012	5
2	Bunge	Council Bluffs	78-01-085	3
3	Dyersville Die	Dyersville	31-02-007	1
4	Maqeoketa	City of Maqeoketa	49-01-013	3
5	Pella	Pella	63-02-003	4
6	S & J Tube	Wapello	58-01-007	2
7	Stone City Iron	Amamosa	53-01-007	2
8	Swift	Marshall Town	64-01-015	6
9	Winterset	City of Winterset	61-01-001	3
10	Spectrum Energy	Independence		2
11	Midwest Grain	Lakota		1
12	Siouxland Energy	Sioux City		1
13	Alliant Energy	Burlington Station		5
14	Winnebago Industries	Forest City		15
				53

Introduction

Prior to the on-site review, the EPA forwarded two prereview questionnaires to the AQB and requested the bureau's responses in advance of the on-site review. These construction and operating permit questionnaires and the state's responses can be found in Appendix C. In addition to responding to the questionnaire, the AQB provided copies of log sheets indicating the receipt of source submitted documents for identified units for the most recent 24-month period. Upon transferring pertinent information on the sheets to a master electronic spreadsheet, we

generated various spreadsheets (copies in Appendix C) to facilitate a basic understanding of the project activities sources have pursued. Items of interest included as-builts, process type, frequency of physical/operational changes at a given source, and the potential for triggering prevention of significant deterioration (PSD) and/or NSPS/NESHAP applicability.

Of particular interest was the level of review the AQB conducts with respect to minor and synthetic minor projects. Several files were targeted for review based upon the criteria listed above. In many instances, our spreadsheets implied large numbers of changes had occurred at some sources. However, many of those changes turned out to be requests for minor/administrative revisions to previously issued permit conditions. As such, we focused our review effort on construction permitting with little if any attention to the bureau's operating permitting activities.

General Findings

The IDNR permitting program appears to have all of the necessary tools to carry out a fundamentally sound preconstruction review program. The staff appear to be well trained and are generally familiar with the policies and guidance that guide this complex program. The preconstruction permit review engineers also appear to have ready access to other key technical staff, including those in the modeling, enforcement, and legal sections. The permit project files were very well organized and included a range of checklists, emissions tables, engineering reviews, and other information helpful for understanding the permitting history of each facility. Generally, it appears that the permitting staff are familiar with the Federal NSPS, NESHAP, and MACT technology standards and are incorporating the requirements into the permit documents. We are encouraged by the IDNR's initiative to make electronic copies of preconstruction permits available via the Internet. We look forward to a time when we are able to look at permits directly online. Commendations and specific recommendations for improvement follow in the paragraphs below.

<u>Document Storage</u>

The documents pertaining to a particular change (physical, administrative, etc.) are banded together in a set order with a cover sheet. Once we understood the type documents so assembled (e.g., permit, technical/engineering assessment, permit application, modeling-related), we could easily and quickly find the relevant documents and specific information of interest. This filing method is unique in comparison to other Region 7 state agencies. The effort needed to assemble and band the documents is probably considerably offset by the benefits gained. The cover sheets set forth the permitting/denial action date for the proposed change which facilitates a chronological examination of the file.

We suggest that each cover sheet briefly describe (permit for a proposed new boiler, revision to permit condition number ___, etc.) the change addressed by the underlying documents. Such descriptions would allow file reviewers, internal or external, to sort permit changes by type.

We also suggest that the cover sheets list by date any recent permitting actions if the underlying technical assessment does not do so. This would help in identifying attempts by a sources to stage major projects to avoid triggering additional requirements such as PSD or nonattainment review.

Checklists

It quickly became apparent that the bureau has developed and, apparently, requires the use of checklists by staff as they review submitted documents. We commend the states use of checklists. They are an effective tool for fostering comprehensive reviews and adherence to regulatory and in-house procedures. Examples of completed checklists found in the files included: Air Dispersion Modeling Checklist, AIRS Plan/Permits Description Form, Public Notice Checklist (non-PSD), and Permit Package Checklist. We encourage their continued development and use to promote comprehensive, consistent reviews.

Engineering Evaluation Summaries

Such documents are often included under different names and formats. Among those we encountered were Project Evaluation Summaries, Engineering Evaluations, and Technical Evaluations. These documents generally include the reviewing engineer's description of the change being addressed and state the change's applicability status regarding the listed rules and regulations. Many of the summaries also carefully documented the entire permit history of the facility under review, helping a casual observer quickly understand the nature of projects taking place over time. We were particularly impressed with the format utilized by Peter Zayudis. These summary documents appear to set the basis for the bureau's decisions.

Our understanding is that the intent behind the completion of a summary document is to ensure that the reviewing engineer appropriately address those factors which are important to deciding whether to approve a requested change. While the intent is commendable, we believe some other important considerations are not adequately noted in the documents. To increase the integrity of the bureau's reviews and make the extent of the bureau's reviews more apparent to the applicant and to other interested individuals, we suggest that the template be revised to include sections addressing the issues listed below. We also recommend that the bureau consider establishing a companion form to be completed by the applicant and included with the permit application. This would enable the applicant to submit a more comprehensive application.

Fugitive Emissions: The presence or absences of fugitive emissions should be indicated. There should be some discussion as to why such emissions, if present, have or have not been quantified and included in the emission increase associated with the change. In addition, the template or companion document should discuss why emissions have been classified as fugitive rather than point source emissions. This is of particular concern in cases where emissions are initially discharged within a building, but eventually enter the atmosphere through a vent or equivalent opening.

Since fugitive emissions also sometimes count towards PSD applicability, in particular for "named" sources, it is important that the permit record document consideration of fugitives. In at least one permit review, it appears that fugitives emissions were not considered for construction of a new greenfield ethanol plant, even though it is considered a "named" PSD source. Fortunately, point source emissions from the plant were sufficiently low so that fugitives were unlikely to trigger PSD review. In another ethanol plant review, the department correctly considered fugitive emissions in the applicability assessment. A template would help to ensure that all of the permitting staff are consistent in their assessment of fugitives and would help to eliminate the disparity described above.

Emission Factors: Many of the applications and permit technical summaries contained good emission factor documentation, but in other cases the review engineer opted to use less conservative AP-42 estimates over vendor-specific emissions data. The bureau and applicant should document how emission rates have been determined and why such emission rates are representative of the anticipated emissions from the process unit in question. If AP-42 is the emission factor source, the factor's rating should be noted.

Collateral Increases: The summary document should identify and quantify any collateral emission increases associated with the permit change.

Emissions Netting: Reviewing engineers should comment on the adequacy of any netting sought by the applicant relative to the crediting criteria set forth in the state's PSD regulation.

Past Projects: Reviewing engineers should consider any approved or unapproved modifications that have occurred over the last two to five years in conjunction with proposed changes. This is necessary to avoid any potential disregard for additionally applicable permitting requirements, e.g., PSD, acid rain, or nonattainment review. Reviewing engineers should investigate any connection between previous and proposed changes and document their findings. In at least one permit file, the review engineer prepared a comprehensive spreadsheet of projects that had taken place at a plant over the last 20 years. We encourage the department to expand this approach for each plant that submits a large number of permit applications over a relatively short period of time.

Source Configuration: Collateral emission increases involving multiple plant sources should not be overlooked. Reviewing engineers should investigate whether multiple, commonly owned, adjacent plants within the same airshed constitute a single stationary source. Findings should be documented.

Public Participation: The summary document should discuss whether the proposal requires the opportunity for public participation prior to the taking of a final action.

Environmental Justice: The bureau should implement appropriate review procedures to ensure that environmental justice factors have been reviewed and addressed as necessary.

Applicability Decisions: A note should be added to the NSPS/NESHAP section to emphasize that the "basis" for the applicability decisions must be clearly stated.

Sources Undergoing Frequent Changes

About a dozen plants appear to have made many frequent physical changes over the two-year period examined during our review. We are concerned that the department is not reviewing each proposal beyond the scope in which it is presented by the source. We suspect there are instances where proposed projects are associated with previously approved projects. Sources may be staging major projects by presenting them as multiple minor projects. The project files we reviewed have no indication that the reviewing engineers investigated this possibility. Each review appears focused on the project at hand without a consideration for possible ties to previously approved projects. In at least one case, we raise serious questions where it appears that multiple, closely-spaced de minimis projects should have been considered as a single PSD project. In this particular case file, it appears that the department began to suspect a PSD avoidance strategy being carried out by the company and began to carefully document all of the emission increases at the facility over the course of 20 years. However, it appears that this effort was not concluded and certain PSD questions remain open-ended today.

Close Proximity Plants

Several companies, including HON and Curries, have multiple plants within the same general area. These plants may, from an operational standpoint, constitute a single stationary source rather than separate sources for PSD purposes. In multiple plant situations, the proper establishment of the "source" is a very important consideration given that all collateral and creditable emissions changes at a "source" must be identified and quantified for PSD applicability determination purposes.

While it appears staff engineers have made logical conclusions in these situations, the files we reviewed do not document the rationale for such conclusions. We acknowledge that our file review was limited to the most recent two years. Earlier files may include written discussions regarding these matters. We suspect that companies may, over time, change their operating patterns and may begin to operate multiple plants as a single source. If this is occurring, we expect the AQB to provide a written discussion regarding each situation on a project-by-project basis. This would help demonstrate the adequacy of the department's reviews and may also benefit current/future departmental personnel or others who may not be familiar with the situation.

Record of Telephone Conversations (RTC)

We noted many RTCs in the files. We commend the bureau's documentation of these important communications.

Dispersion Modeling

A fair number of the files we reviewed contained evidence, such as internal memos, regarding the performance of dispersion modeling studies for proposed minor projects. Such studies were generally performed by the department rather than the source. When performed, the modeling appeared to be quite comprehensive and in at least one case resulted in changes to the source design because of predicted NAAQS exceedances. Many projects, however, were not evaluated based on criteria specified in the department's modeling guideline. We emphasize that prior to approval, each project subject to the state's construction permitting program must be evaluated with respect to its impacts on the NAAQSs and the applicable SIP. We encourage the continued use of screening and expanded source modeling to answer these questions. See 40 C.F.R. Part 51, Subpart I, which sets forth the minimum requirements for preconstruction review programs.

Public Participation

We encountered only a few projects which involved the expressed opportunity for public review and comment. The factors which contributed to the bureau's decisions regarding the need for public participation were not readily apparent. Per the requirements of 40 C.F.R. Part 51, Subpart I, each project subject to the state's construction permitting program must be subjected to public review and comment prior to approval.

Permit Applications

Each permit appears to incorporate, by reference and standard condition, all proposals made in permit application documents. There may be instances where proposals in the application may not be addressed in the permit. In such instances, the question arises as to whether the owner/operator is obligated to implement all proposals such as equipment manufacturers, model numbers, design capacities, and fence line locations. A discussion including staff from the state's legal department revealed that AQB considers such proposals enforceable requirements.

The "Transferability" section of two permits reviewed (see the permits for Stone City Iron and for City of Winterset) contain text stating that the permit ". . . is for the construction and operation of the specific source, equipment or control equipment described in this permit and in the application for this permit." Most other permits make no mention of the descriptions in the application—they focus solely on equipment rather than also on proposals in the application that relate to nonequipment such as building configurations, fence lines, etc. We suggest that the template(s) be revised to provide clear statements regarding these additional matters. As written,

the statements of concern imply that only proposals or submitted plans/specs involving equipment and/or emission control systems will be enforced. We also suggest that these matters be discussed during preapplication meetings.

Permit Conditions

Deadlines for Commencing/Completing Construction: Permits set forth deadlines for commencing and completing construction. With respect to PSD permits, we suggest that a generic construction duration not be preset. The "within a reasonable period of time" requirement should be addressed on a case-by-case basis. The application for a PSD permit should require a proposed construction schedule. The schedule should be addressed by the department for reasonableness. If it is deemed reasonable, the schedule could be used at a later date to gauge whether construction was completed within a reasonable period of time.

Test Methods/Runs: Permits clearly set forth the test methods that must be used when testing is required. However, the duration of each run and number of runs per test are almost never specified.

Enabling Legislation./Legal Authority: Permits adequately address this information.

Unnecessary provisions: Permits contain unnecessary provisions, e.g., provisions relating to portable equipment when the equipment/process being approved is not portable, compliance testing provisions when the permit does not impose testing requirements. This information results in unnecessary complexity and is a source of potential confusion. One possible solution is to have the reviewing engineers clear the permit of inapplicable provisions.

Vague/Unenforceable Provisions: Permits sometimes contain vague provisions which may make enforcement difficult or impossible. For example, the "excess emissions" standard condition of permits does not state the department's intent regarding the meaning of "expeditious manner" and "within a reasonable period of time." In addition, many permits applied annual caps on VOC emissions, but did not specify the mass balance equation necessary to account for all VOC emissions. In many cases, emissions from part preparation, coating thinning, and cleanup solvents were not even quantified or mentioned in the applications or permits. Where a cap considers only those emissions from the coating operation alone, and sets the limit at the PSD threshold, these ancillary VOC emissions can easily put the project over the PSD significance levels. To minimize this possibility, mass balance equations should be specified directly in the permit to assure that all emissions are accounted for.

Continuous/Periodic Monitoring: With regard to mechanisms for verifying compliance with emission limits, permits do not routinely impose continuous, periodic, or parametric monitoring requirements.

Unit/Process Descriptions: The permit application and engineering notes generally contain a very comprehensive description of the equipment being permitted. However, in most cases, the

permits do not fully describe the unit/process being approved. This may not be a problem if the descriptions in the application and/or in supplementing documents are considered enforceable by the AQB. In any case, we recommend that the descriptions in the engineering notes be cut and pasted into the permit directly so that permits for individual pieces of equipment can be more readily identified.

Averaging Period: Permits do not set forth the averaging period for applicable emission standards. The permits typically defer that decision to the AQB's representative at pretest meetings. With few exceptions, we believe the averaging period should be set at the time of permit issuance. The averaging period affects the stringency of the emission limit and that the intended stringency of these limits should not be allowed to change without a formal revision of the permit. The same principle should apply to PSD and minor source permits.

Long-Term Averaging: Permits routinely impose long-term limits, e.g., 12-month average, rolled monthly without justification.

Dual Emission Standards: Permits do not set forth both emission caps, e.g., lbs/hr and emission limits that vary with load, e.g., lbs/mmBtu of heat input, or production, e.g., lbs/ton clinker.

Threshold Emission Limits: Permits unnecessarily establish emission limits considerably higher (e.g., by a factor of 10 or more) than anticipated actual emissions. These higher emission limits, are generally set at levels, e.g., 39.4 tons per year (TPY) for NO_x, allowing projects to avoid becoming subject to PSD review. In some cases, such limits have been set when the applicant requested lower limits. Because dispersion modeling studies are generally not performed regarding many approved projects, we suspect ambient impacts are not adequately addressed. We suggest that the practice of setting unnecessarily high limits be discontinued if the SIP control strategy is not based on these limits. Another potential adverse consequence of such a practice is it may encourage owners/operators to scale back efforts to properly maintain and operate their equipment. Also, if this practice doesn't square with the operation/maintenance provisions of the permit, or if other provisions of the permit will prevent emissions at the seemingly inflated level, such limits are unjustified and unnecessary.

At the other extreme, we don't recommend that modeling be used to relax an emission limit right to the NAAQS or increment consumption level. In one case, the state allowed a limit to slip to 14 times the level predicted by the applicant. This type of emissions "slop" sometimes sends the wrong message to a source that it does not have to operate its control equipment consistent with good engineering practice, or that it may undertake other construction projects using these nonexistent paper emissions as netting credits. Unless there is a compelling reason to inflate an emission limitation, we encourage the department to set the limit at a level consistent with a well documented vendor guarantee or AP-42 emission factor if better information is not available.

Policy Notebook

Our review of the bureau's Policy Notebook generated the following concerns.

Policy Procedure Number 3-b-04: Wet Cooling Towers are inappropriately exempted from being subject to the department's permitting rule by policy. The policy notebook should be revised to be consistent with the SIP.

Policy Procedure Number 3-b-07: This policy appears to allow the commencement of construction activities prohibited under the state's PSD regulation prior to permit issuance. The policy should be revise to clarify this matter. In our view, projects are major and subject to all prohibitions applicable to major projects until the synthetic minor permit is issued. Furthermore, construction activities not allowed by the PSD/NAA regulations prior to permit issuance must not be allowed to commence.

Policy Procedure 3-b-12: This policy appears to imply that the state has delegated Federal authority regarding NSPS Subpart GG alternative/custom monitoring schedules. This is not the case.

Prereview Construction Permit Program Questionnaire

General Information: The EPA's current internet setup does not currently allow us to access the IDNR's SPARS permit tracking system.

Discovery System: As we reviewed the log sheet information provided us, we were alarmed by the number of units/processes having "as-built" status. However, the bureau's response notes that the percentage of as-built facilities is decreasing which is encouraging.

Applicability Determination: The bureau's policy regarding custom schedules under NSPS Subpart GG suggests there is a misunderstanding of the Federal authorities that have been delegated to the state. The EPA would welcome the opportunity to clarify which programs have been delegated. Once a clear understanding has been achieved, we recommend the bureau ensure that local agencies to whom subdelegations have been made are aware of the limitations of the delegations.

Resources: The Region 7 library maintains a comprehensive microfiche collection. The EPA also maintains a number of Web sites from which documents can be viewed or downloaded. We encourage your use of these resources. Library assistance can be obtained by calling (913) 551-7241.

Training: We acknowledge the bureau's frequent use of the APTI satellite courses. We encourage the state to keep the EPA apprized of its usage levels. This information is communicated to Agency personnel who evaluate the efficacy of such training programs. There is real concern that this program could be drastically cut or eliminated in the future.

Source-Specific Findings

Ag Processing

Plan/Permit(s) Description Form: The form does not have an "Application Completeness Date." Assuming the form in question is also used for PSD-level projects, the "completeness date" should be tracked/noted for future reference in case the minor source baseline date must be determined for the area.

Permit, dated 5/21/01: The basis for the NSPS applicability determination is not fully established; the original commence construction date for the unit is not addressed. In addition, Condition 8.B.1 and 2, respectively, reference an Iowa rule and Iowa policy. We suggest that copies of these documents be attached to the permit.

Permit, dated 8/22/96: There was no indication in the file as to whether the bureau attempted to determine what the source's actual emissions would be. The possibility exists that actual emissions could be considerably less than the source's estimate of 246 TPY. It appeared that the source's emission estimate was accepted without question or verification.

Bunge

Permit, dated 5/14/01: Condition 11 establishes requirements relating to exhaust temperature and exhaust flow rate. It's not clear whether such values are intended to be caps or minimums. In addition, the permit allows the company to decide how compliance will be verified and the permit silent with respect to monitoring frequency. These ambiguities may hinder any enforcement activities that become necessary.

Maqeoketa

Permit, dated 3/01: This permit contains a blanket restriction of 99 TPY per 12-month period and established a formula regarding oil and gas consumption to limit PTE without associated restrictions on production, material usage, etc. Neither approach is allowed under the EPA's PTE policy or guidance.

The associated Modeling Checklist indicates the use of adjusted AP-42 emission factors were adjusted by 15 percent without a demonstration that original factors and the adjustment were applicable to the unit in question.

Pella

Permit, 00-A-017: Establishes lbs/hr particulate emission limits equivalent to 24.4 TPY and 14.4 TPY—slightly below PSD significant emissions increase thresholds. Calculated actuals are considerably less than these limits.

Winterset

Permits, dated 11/30/00 and 4/2/98: Similar concerns as given for Maqeoketa.

Spectrum Energy (Independence, Iowa)

We looked at two projects and four permits involving installation of two turbines at each of two locations in Independence, Iowa.

The project description found in the IDNR engineering analysis was very detailed and descriptive. A similar description, in each of the permits, would be very helpful to an outside casual observer, such as an inspector, that might not otherwise have direct access to the file notes.

The project files contained very detailed emission calculations, including very good references to AP-42 emission factors. The potential to emit calculations for SO_2 and NO_x were conservatively higher than those that would have been calculated using specific turbine vendor emission factors.

For CO, the AP-42 factor was considerably less conservative, by a factor of three to six times, than that estimated by the vendor. While CO emissions using the higher factors would still be below the 250 TPY PSD major stationary source threshold on an individual turbine basis, the PSD threshold could be crossed when both turbines are considered on a plantwide basis; even at the 7,200 hours of operation limitation imposed in the permit. Since CO emissions were not specifically limited in the permits, this could potentially be of concern if CO emissions are at the high end of the vendor's range. If subject to PSD review as a result of CO being major, review for NO_x would have also been triggered. To guard against this possibility, specific CO emission limitations, along with appropriate compliance verification, should have been imposed in the permit.

The engineering assumptions used in the PTE calculations were superimposed into the permit in the form of a TPY cap, individual turbine NO_x limits, and total plant hours of operation. With respect to the 241 TPY cap, the permit did not include any methodology for verifying compliance with this limit. Such procedures would be helpful and would eliminate any doubt or confusion over how to make the compliance calculation. The individual 25 ppm NO_x concentration limits did not contain an averaging time, but was presumed to be the length of time necessary to carry out a stack test. Again, since averaging time is a critical component of any emission limitation, it should be clearly stated as part of the permit condition. With regard to the 7,200 hours of operation plantwide cap, the condition appeared to limit total turbine operation to

no more than 7,200 hours combined, but could be read to allow simultaneous operation of both turbines during a single hour, such that only one turbine-hour would be counted. An additional statement clarifying that each hour during which both turbines operate is considered two turbine operating hours might have been helpful. Lastly, the permit did not require periodic monitoring for NO_x so that the short-term 25 ppm limit could be verified. It's possible that this monitoring task was intended to be left to the acid rain monitoring program, but the construction permit could have taken advantage of this already-required monitoring opportunity.

Since each turbine is larger than 25 MWe, each would be subject to the acid rain permitting and monitoring requirements. Although the acid rain obligations don't have to be reflected in a preconstruction permit, it would be helpful to inform the source of its obligations early in the construction process. It's possible that this information may have been contained in another source file that we didn't review. In any case, we recommend that it would be beneficial to include any appropriate acid rain requirements in the preconstruction permit so that these obligations are easily rolled over to the Title IV and Title V operating permits.

The permit file acknowledged that the department considered 112(g) review for HAPs but concluded that since the facility had taken limits on its operations, a case-by-case HAP review was unnecessary. However, no documentation was found on what HAPs might be emitted or in what quantities, so it was impossible to verify whether the 112(g) major source thresholds were exceeded or not. Formaldehyde emissions, in particular from aeroderivative turbines, can be quite high and it is possible that the 3,600 hour assumption used for each turbine may not have been sufficient to relieve the company of 112(g) review. We recommend when making a 112(g) nonapplicability determination that the appropriate support materials, including emission calculations for all appropriate HAPS, be documented in the permit record.

Alliant Energy, Burlington Power Station

We reviewed five projects involving the issuance of five preconstruction permits. In general, the permit file contained excellent documentation on the past permitting history at the power plant. All of the projects included detailed potential-to-emit estimates for criteria and HAP pollutants where appropriate, good references for emissions factors used, comprehensive rationale for NSPS applicability and PSD nonapplicability determinations, and relevant references to the EPA national guidance for matters of national significance (e.g., debottlenecking and routine replacement and repair). When implementing the NSPS Subpart Dc "reduced recordkeeping and reporting" agreement between the EPA Region 7 and the IDNR, conditions in the permits were clear and concise and appropriately referenced back to the underlying agency agreement.

Midwest Grain (Lakota, Iowa)

We evaluated 12 permits for 12 individual process units for "greenfield" 45 million gallon-per-year ethanol plant. Application and the IDNR estimate PTE to be well below PSD thresholds, so the department processed the collection of process equipment as minor source construction permits.

It was encouraging to see that the applicant and department evaluated fugitive emissions from the entire collection of equipment being approved. This analysis is particularly important for determining whether such emissions contribute to the potential to emit for "named" major stationary sources and potential PSD applicability. It was also helpful to see a worksheet for HAPs specifically designed to assist in an applicability determination for 112(g) preconstruction review.

Comprehensive modeling performed by the IDNR showed that the new plant would have an impact of approximately 148 $\mu g/m^3$ [24-hour] and 39.8 $\mu g/m^3$ [annual] compared to the NAAQS concentrations of 150 and 50, respectively. The modeling appeared to factor in impact from fugitives as well as a conservative background concentration. It was encouraging to see such a comprehensive analysis for a permit that was ultimately processed as a minor project.

The permits also clearly noted which NSPS standards would apply to each piece of process equipment, such as the many new tanks subject to NSPS Subpart Kb. This was helpful. However, given the emission unit focus of each permit, it was unclear how a plantwide standard, such as the SOCMI leak detection and repair standard found under NSPS Subpart VV, was intended to be applied. For standards that apply plantwide, it would have been helpful to see a section in each permit announcing which requirements apply globally to the whole facility. As an example, certain pumps, valves, compressors, and other equipment may not be specifically associated with an individual emissions unit but may sit between several of these units. To eliminate any confusion, it would be helpful for each permit to include a "plantwide" section to list any standards that might apply more broadly than a particular emissions unit.

Based on prior review of smaller ethanol plants, PSD can be easily triggered at the 100 TPY major source threshold for an ethanol plant in the 16-18 million gallon-per-year range. This plant is nearly three times larger and potentially calls into question many of the emission assumptions used.

The emission factor estimates used to evaluate potential emissions don't appear to have a solid basis. Origin of hourly mass rate emission factors were not documented, but appeared to be similar to those used in the evaluation of the Siouxland Energy ethanol plant review, even though the Siouxland plant is approximately three times smaller. Emission factors appeared to be based on "best guess" rather than actual emissions test data or other accepted emission factors. Test data are widely available for these types of operations from other state agencies and could have lent additional support to the permit review. Fortunately, the permits appear to establish the appropriate compliance testing to ensure that permit limits are met. When actual

test data are collected from the Midwest Grain installation, the department may find that emissions are much higher than anticipated and may trigger PSD review.

Siouxland Energy and Livestock COOP (Sioux City, Iowa)

We looked at 15 permits covering 15 individual process units for "greenfield" ethanol plant. Given the complexity of permits, it would have been helpful if file, or collection of permits, would have included an overall description of the project.

Permit makes reference to Subpart Dc reduced recordkeeping and reporting, but doesn't any include specifics in the permit. Further, the EPA's generic Subpart Dc reduced recordkeeping template was not found in the file. It is unsure how source would know what its obligations are.

Permit(s) make no mention of the full production capability of the plant. This baseline information is essential for understanding how future expansions may affect PSD applicability at the plant.

It appears PSD nonapplicability was incorrectly based on a 250 TPY major stationary source threshold rather than the 100 TPY threshold applied to ethanol plants. We found no documentation in the file that corrected this misperception. In this case, though, it didn't make a difference since the estimated emissions were also below the 100 TPY threshold. Just so the record is clear, it would be helpful for the department to add a memo to the file correcting this problem.

Also, applicant did not appear to quantify fugitive emissions, which for a "named" PSD source is critical since such emissions count towards the major stationary source applicability. Application should have estimated fugitive VOC losses from valves, compressors, pumps, flanges, and any other like equipment. Based on a quick estimate of fugitive emissions, in conjunction with other source emissions, it appears that the entire operation would still remain below the 100 TPY PSD threshold.

Source appears to have avoided PSD primarily because it plans to operate a "wet" distilled grain solids operation rather than "dry" process. If the process is changed to a "dry" process any time soon after original construction, which would then include the use of a drier and significantly increase emissions, we will likely consider the drier part of the original construction.

Winnebago Industries (Forest City, Iowa)

Given the complexity of the file and the many NSR issues involved at this plant, we briefly reviewed 15 projects involving the issuance of 25 permits. In short, it appears that the company is, or has been, undertaking many projects over the years, some which appear to have occurred simultaneously and thus may have triggered PSD review. No PSD permit application

or permits were found for these projects. In an effort to keep tabs on the large number of emission points, the file contains a comprehensive spreadsheet for monitoring the addition, and subtraction of equipment of the plant. These spreadsheets, which appear to be updated periodically, reveal large "potential" emission increases over short durations, again raising questions about whether some of the projects should have undergone PSD review. More specific details follow below. These anomalies warrant further investigation by the IDNR and EPA Region 7 enforcement staffs.

In 1985, Winnebago undertook six new projects with an estimated potential to emit of over 298 tons VOC per year. This equipment was not permitted until after the fact, with five projects permitted in 1988 and the remaining project in 1996. Given the magnitude of these additions, it is unlikely that the company would have had sufficient reductions to net out of PSD review or to sufficiently limit the emissions to less than the PSD significance thresholds. It also appears that these projects were also sufficiently interconnected such that they should have been considered part of a larger phased construction program, subject to the full PSD program review requirements. In 1997, the file reflected that the IDNR began to question PSD applicability for two paint silos which account for nearly 258.2 of the 298 tons of predicted VOC emissions. Actual emissions from the two paints, based on historical operations, were approximately 83 tons per unit or 166 tons combined. The department called on Winnebago to submit a PSD application. The company responded that it preferred resolution of the matter by means other than PSD since the equipment was now ten years old. Nevertheless, the company submitted an application form with an analysis of secondary impacts, visibility, and very limited information on BACT-type controls. Following this brief exchange of correspondence, the paper trail ended and it appears that the matter was no longer pursued. By all appearances, this matter was never resolved and remains an open question today.

Another plant expansion in 1998 involving two projects increased the potential to emit at the plant by another 66 tons VOC per year. These projects were approved in 1998, but were processed as separate permitting actions consistent with the submission by the company of two permit applications. The first permit had an estimated potential to emit of 37 TPY and the other a potential to emit of 29 TPY. The applications were separated by a matter of months, but both appeared to be similar in nature and likely should have been permitted as one major PSD project or otherwise properly limited to avoid PSD review. There was no documentation in the file indicating whether the IDNR pursued this question of PSD applicability.

Other less major expansions occurred in 1987 and 1995 with the projects totaling 39.5 and 38.25 tons VOC per year, respectively. The 1987 expansion involved four projects, all which were issued after the fact in 1988. One of the four permits accounted for approximately 31 tons of 39.5 ton increase, but the permit did not reflect the 250 days-of-operation assumption used to limit the potential to emit. Based on the enforceable conditions placed in the permit—limiting the daily use and VOC content of the coatings—the potential to emit for this project would have been approximately 44.9 TPY, well over the PSD significance threshold. While the permit also established an operational cap on the 31 TPY project, it did not establish any enforceable mass balance procedures for determining compliance with the annual limit. The

recordkeeping provisions in the permit, if complied with, were adequate to make the appropriate mass balance equations, but the burden for such calculations appeared to rest with the IDNR. In addition, it was unclear if the VOC cap was adequate to also account for solvents used in part preparation, coating thinning, and cleanup. Even if the permit were considered to properly limit VOC emissions from this process to 31 TPY from the spraying operation, the ancillary VOC emissions could easily once again put the project over the 40 TPY PSD significance threshold. It may be possible that the project could have been properly limited to avoid PSD review, but this was not done. As a consequence, the 1987 project also appears to have triggered PSD review.

In 1998, the company filed two additional permit applications, again spaced apart by a couple of months, for installation of laser cutting machines. Potential emissions were estimated using the SIP-allowable emission rate of 0.1 gr/dscf at 3500 scfm, or 3 pounds PM per hour. Without any additional restrictions on the hours of operation, the potential to emit for each unit would have been 13.1 TPY, or 26.2 TPY combined. Assuming that the bulk of emissions would be PM_{10} as well, both the PM and PM_{10} PSD significance thresholds of 25 and 15 TPY would have been exceeded. The spreadsheet maintained by the department indicates potential PM and PM_{10} emissions for this equipment to be 0.359 TPY, but there was no documentation in the file confirming these calculations. If the equipment is properly limited, either by virtue of an hours-of-operation restriction or by use of a more realistic emission factor, then emissions from the laser cutters are likely well below the PSD thresholds. However, in the absence of such restrictions, PSD review should have been triggered.

The permit file documented many emission increases from new projects but no emission decreases from shutdown or curtailed equipment. Therefore, it was not possible to conclude whether the source would have had PSD netting opportunities or not. The spreadsheet maintained by the department is an excellent tool for documenting the change in process equipment over time. In fact, it is essential for piecing together whether a company is exercising a PSD avoidance strategy or not. We recommend continued use of this type of detailed project management tool for sources that seek many closely spaced, seemingly-connected projects.

The file also revealed comprehensive modeling assessments for PM_{10}-related projects. In at least one case, modeling was used to require modification of stack diameter to remedy predicted PM NAAQS problems. We encourage continued use of such modeling exercises where the department has reason to believe that a project may cause a NAAQS or PSD increment problem.

Lastly, the file contained comprehensive emission calculations for the various HAPs released by process equipment, including a comprehensive 112(g) preconstruction review questionnaire. The file also documented that the Winnebago plant would be subject to the

furniture MACT under Subpart JJ. This type of information is critical for understanding what technology standards the source must meet and makes it much easier to incorporate such requirements into the Title V permit.

APPENDIX C

Construction Permit Questionnaire/IDNR Response

Operating Permit Questionnaire/IDNR Response

Region 7 Spreadsheet

Policy Notebook Excerpts

Section 5

Compliance and Enforcement

Compliance and Enforcement

Introduction

Region 7 last conducted a review of the Air Compliance and Enforcement Program on May 25-27, 1999. The final report for this review was issued on September 24, 1999. Region 7 subsequently decided to perform a audit of the IDNR's entire air program in 2001. Due to the short period in time between the 1999 review of the Air Enforcement and Compliance Program and the present audit, it was decided that the 2001 review of the Air Compliance and Enforcement program would concentrate on the program areas identified as needing improvement in the 1999 review were as follows:

Inconsistency in enforcement response between Field Offices (FO), within FOs, and between FOs and the Compliance Assistance Section (CAS)

Designation of High Priority Violations (HPV)

Timely and Appropriateness Response to HPVs

CAS tracking of required facility submittals

Compliance Assistance Section tracking and review of Excess Emission Reports (EER)

Local agency oversight

AQB facility files vs. FO facility files

Program Review Methodology

Entrance Meeting

Immediately following a general kick-off meeting on July 24, 2001, with affected AQB staff, the Iowa Coordinator for Compliance and Enforcement, Mike Bronoski, met with Chuck Corell, Supervisor, and Christine Paulson, Lead Worker, of the Compliance Assistance Section (CAS) to review the plans for the audit and verify some information.

File Review

In an attempt to address Region 7's concern about inconsistency in enforcement response, a file review was conducted by Mike Bronoski and two additional state compliance and enforcement coordinators, Angela Catalano and Lisa Hanlon (the review team). The file review concentrated on the inspection reports generated the by the FOs, but all material in the file received a cursory review. Other material in the files generally included Title V annual compliance certifications, Title V semiannual monitoring reports, construction permits, notices

of excess emissions and correspondence.

Review of Background Documents Used on Every-Other-Month Region 7/CAS Enforcement Calls

Region 7 and the CAS conduct conference calls every other month to review ongoing enforcement activity conducted by the FOs and the CAS. The starting point for these calls is a "Background Document" prepared by Region 7 based on enforcement documents received by Region 7 from the FOs and CAS since the previous conference call. During these calls, Region 7 and the CAS have historically decided on the designation of High Priority Violators "jointly." In order to evaluate the appropriateness of these joint designations, the team reviewed the Background Document for the April 2000 and April 2001 teleconferences. The standard used was the document "The Timely and Appropriate (T&A) Enforcement Response to High Priority Violations (HPVs)."

Review of AIRS Data—Timeliness

The HPV guidance establishes deadlines to be met when taking an enforcement action against a High Priority Violator. The most important deadline is designated "Day 270" by which time the violation should be "addressed." An "addressed" violation generally means that a penalty or nonpenalty order has been issued, the violation has been referred to the state attorney general's office, or the source has been returned to compliance by the state without further action. Current AIRS printouts of "addressed" and "unaddressed" violations were reviewed during the audit for compliance with the Day 270 criterion for violations beginning in 1999 and extending to the present.

Review of AIRS Data—Penalty Amount

An AIRs printout of penalty amounts collected by the IDNR was reviewed for the period Calendar Year (CY) 2000 through the present.

Review of Local Agency Audit Reports

The compliance assistance and enforcement sections of the local agency audit reports for the audits conducted in 2000 by the CAS were reviewed for consistency with the EPA goals and priorities.

Iowa Air Compliance and Enforcement Program Overview

The reader is referred to the 1999 review report for an overview of the IDNR Air Compliance and Enforcement Program.

Findings

Inconsistency in Enforcement Response Between FOs

The file review identified violations discovered by FO staff at 16 facilities. Notices of Violation (NOV) were issued to seven facilities, and the remaining facilities were advised of the violation either through discussion in the cover letter transmitting the inspection report or in comments in the inspection report itself. Because of the wide variety of violations identified, the review team could not draw any conclusions about inconsistency in enforcement responses between the FOs. However, upon comparing the actions taken by the FOs to the guidelines provided in the IDNR guidance document "Air Quality Enforcement Document," the comparison showed that the FOs seemed to be following the guidelines in 70 percent of the cases where violations were identified. Although the audit team recognizes that the document is "guidance," its existence and apparent use by the FOs addresses Region 7's earlier concern in this area at this time.

Other Findings From File Review

The standard inspection form used by the FOs, with the exception of FO #2, includes a Column 7 titled "Maximum Capacity or Operating Limits." This column is usually filled in and lists some of the applicable requirements for each source, but not all. Since many completed inspection reports contain no additional comments other than the required entries on the inspection report form, the audit team questions if all applicable requirements are being checked during the inspection. The audit team acknowledges that an IDNR guidance document exists titled "Air Quality Inspection" which outlines the need to check all applicable requirements, but the question remains if this is being done given the brevity of the standard inspection form. At the other extreme, some inspection reports include a separate sheet with comments for each emission unit/emission point. FO #2 is also commended for its use of a new inspection form which lists all applicable requirements for each emission unit/point. It is also noted at the audit closeout meeting, the CAS advised that the Compliance and Enforcement Module of the SPARS system will make it much easier for an inspector to review the applicable requirements for each emission unit/point before an inspection and should address this EPA concern.

The standard inspection form includes a Column 13 titled "Comply Status." In some of the inspection reports reviewed where an emission unit/point was not operating at the time of the inspection, the entry in this column was listed as "0" or "Unknown" compliance status. The audit team could not tell from these reports if the inspection of that emission unit/point stopped at that point, or if further effort to determine the compliance status of the emission unit/point was pursued. The audit team believes a further effort should be made to determine compliance regardless of the operating status of the unit. For example, for an emission unit/point subject to keeping 12-month rolling totals of paint usage, the records for the 12 months previous to the month of the inspection could be reviewed for compliance. Failure to do so may result in the

emission unit/point not being checked for compliance until the next inspection, which may be one-two years in the future.

Designation of High Priority Violators

The audit team reviewed the enforcement histories in the Background Documents and the HPV designations made for consistency with the HPV Policy as explained above in Section III: Methodology. This included the first time review of the enforcement history of deviations identified in the CY-00 Annual Title V Certifications. The audit team generally agreed with the determinations made. However, the team found several instances where the HPV designations were not made because neither the Iowa Compliance Coordinator nor the CAS performed the calculations necessary (e.g., calculate percent of emission limit, etc.) to determine whether or not a violation was a HPV.

The team also observed that testing violations were rarely designated as HPVs. Although the team understands that testing violations in Iowa generally result in permit modifications, the team reiterated that the HPV Policy clearly identifies such violations as HPVs and must be so designated.

Timely and Appropriate Response to HPVs

Seventeen HPV designations in the AIRS printouts described under Section III: Methodology were reviewed for compliance with the Day 270 criterion for addressing a HPV. The Day 270 criterion was met for seven HPVs (41 percent); there was time remaining to address one HPV (6 percent), and the remaining eleven HPVs (48 percent) of the HPVs had either missed the Day 270 deadline when the violation was finally addressed, or the deadline had passed and the violation was still not addressed. In the Entrance Meeting with the CAS, it was learned that a number of the HPVs which are past due are caused in part due to delays associated with referring a violation to the Attorney General's office. The CAS has recently attempted to address these delays by meeting with the Attorney's General office even before the referral. This new approach appears to have expedited the referral process for the Williams Pipeline, Keokuk-Ferrosil, and Guardian Glass Referrals.

For the period CY-00 to the present as recorded in the AIRS data base, the IDNR collected penalties from 13 "major" sources. Minor source enforcement and penalties were not considered during the audit because the HPV Policy concentrates on major sources. The penalties ranged from $3,000—$35,000 with the $35,000 penalty resulting from a referral to the Attorney General's office. Two of the penalties were for $10,000 each. According to the CAS, a $10,000 penalty can be sought "administratively" and is sometimes sought for the more significant violations even though a higher penalty might be warranted, in order to avoid the delays in processing a enforcement action through the Attorney's General office. The audit team has nothing with which to evaluate the appropriateness of the IDNR's penalties other than the EPA's Clean Air Act Civil Penalty Policy. Although the Policy calls for EPA penalties to be much higher than the IDNR's for the same violation, the audit team recognizes the restraints

under which the IDNR can collect penalties. It is noted, however, that the IDNR's penalties clearly do consider the factors for assessing penalties outlined in the EPA's Penalty Policy as they are reiterated in each administrative order.

Compliance Assistance Section Tracking of Required Facility Submittals

Timely review of the periodic submittals required by the 40 C.F.R. Part 63 NESHAP (MACT) program is considered a key part of an air enforcement program. The CAS continues to use Excel spreadsheets to track MACT submittals after they are received as identified in the 1999 audit. This approach allows for violations to be missed if reports are not received. Implementation of the Compliance and Enforcement Module of the SPARS program will address this deficiency. The module is expected to be on line in the Fall-Winter of 2001.

Compliance Assistance Section Tracking and Review of Excess Emission Reports (EER)

The CAS continues to review and respond to violations identified in the quarterly EERs as evidenced by the issuance of enforcement actions. However, CAS continues to not update its agency PC-CEMS data base and forward its data to Region 7 for upload into the national PC-CEMS database. It was learned subsequent to this audit that the reason for this deficiency is that the CAS has been awaiting the arrival of some new PCs with software which can better handle the PC-CEMS data. The new PCs are expected in late August 2001, so it is assumed the matter will be addressed soon.

Local Agency Oversight

The review team reviewed the Compliance and Inspection sections of the review reports resulting from the CAS review of the Linn County and Polk County local agency air enforcement programs conducted in CY-00. The CAS review addressed most of the areas considered important to the EPA including inspection scope and coverage, High Priority Violator enforcement, and compliance tracking. The CAS concluded that both programs "operate a strong and effective air enforcement program" and the EPA would agree.

AQB Files vs. FO Files

The 1999 review report noted that some material contained in the FO files were not present in the AQB files and recommended that the problem be addressed. The file review conducted for the 2001 review identified the same problem. Noticeably lacking from the AQB files across all FOs were the facilities' responses to FO NOVs and cover letters of inspection reports where the NOV or cover letter required some response by the facility within a certain deadline. This absence left the resolution of violations open-ended.

Recommendations and Conclusions

The 2001 review of the IDNR air compliance and enforcement program concentrated on areas for improvement identified in the 1999 review report. The same areas still needing improvement and/or new areas are addressed in the following recommendations. The subject content of the recommendations generally track the text of this review report.

1. *Consistency in Enforcement Response Between FOs*: The Compliance and Enforcement Bureau, and the CAS to the extent that they are situated in the AQB, need to stress to the FOs that the FOs use the Air Quality Enforcement Guidelines when responding to violations identified in inspections.

2. *Checking Compliance with Applicable Requirements During Inspections*: The FOs need to be sure to check compliance with all applicable requirements to the extent possible when conducting inspections. Unless a new inspection form is used such as that being used by FO #2, it is suggested that a comment sheet be attached to each inspection report briefly annotating that the specific applicable requirements for each emission unit/point have been checked. This practice is currently being followed by a number of the FOs.

3. *Designation of High Priority Violators*: The CAS and the EPA Iowa Compliance Coordinator need to more strictly adhere to the requirements for designating HPVs as outlined in the HPV Guidance, especially in regard to emission violations documented by stack tests.

4. *Timeliness of Enforcement Response for HPVs*: The CAS needs to improve the timeliness of "addressing" HPVs to bring it into line with the HPV Guidance. At the review closeout meeting, CAS agreed to attempt to accomplish this goal by better tracking of the progress of its enforcement actions. The CAS also agreed that this will be attempted by having the Region 7 Iowa Coordinator for Compliance and Enforcement: (1) provide the CAS with monthly AIRS printouts of days elapsed for unaddressed HPVs, and (2) review the days elapsed since HPV designation for HPVs on the every-other-month IDNR/EPA conference calls.

5. *CAS Tracking of Required Facility Submittals*: The CAS needs to take whatever steps are necessary to ensure implementation of the Compliance and Enforcement Module of the SPARS program as scheduled in the Fall-Winter 2001 time frame. Assuming that implementation of the module occurs as scheduled, this item will be addressed.

6. *CAS Tracking and Review of Excess Emission Reports*: The CAS needs to update its PC-CEMS data base and forward the data to the EPA for download into the national PC-CEMS database quarterly.

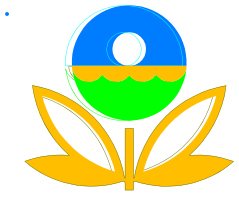
7. *AQB Files vs. FO Files*: The CAS needs to make another effort to ensure that copies of compliance and enforcement information received by the FOs are provided to the AQB.

8. *New Area—CAS Review and Response to Annual Title V Certifications:* The CAS is commended for its timely review of the 2000 annual Title V certifications and for its appropriate enforcement responses. The review and follow-up enforcement generally occurred with 60 days of receipt of the certifications.

Overall, the review team concludes that the IDNR has a very good air compliance and enforcement program. This is essentially the same conclusion that was reached in the 1999 review.

APPENDIX D

List of Field Office Files



Section 6

Asbestos

Asbestos

A. Program Operation

1. Non-notifiers

The IDNR identifies non-notifiers in several ways. The most frequent method occurs when someone lodges a complaint with the AQB. Field investigators are dispatched to the site and conduct a field interview and investigation. The AQB receives five to ten complaints per month. The AQB endeavors to ensure that all complaints are investigated.

Also, during their routine duties, inspectors from the IDNR field offices advise the AQB of demolitions in progress or other suspicious activity. The IDNR field offices do not conduct asbestos inspections. Based on this information, AQB staff conduct inspections which may uncover regulated asbestos abatement where proper notification had not been submitted.

The APCP encourages "courtesy" notifications for projects below the NESHAP thresholds. With courtesy notification information, AQB staff can respond to any public inquiries about the site, and will not waste time conducting an unnecessary site inspection.

2. Enforcement Response Policy

The AQB does not have a specific penalty policy for asbestos violations. Generally, a notice of violation is issued for first-time violators and for paperwork violations, whereas penalties are sought for repeat violators of emission control requirements. Penalty determinations consider both gravity of the violation and economic benefit. The AQB can levy a maximum penalty of $10,000; however, the Iowa Attorney General can levy penalties up to $25,000 per violation, per day. The EPA recommends that the AQB develop an asbestos demolition/renovation penalty policy. Such a policy would benefit the regulated community and would minimize the perception that penalties are established arbitrarily.

The IDNR does not have a written policy governing the issuance of timely and appropriate asbestos enforcement actions. However, the IDNR management and staff do keep track of case review and enforcement.

3. Education and Outreach

The AQB realizes the value of education and outreach and has developed several products to support that goal. The AQB has produced a video tape, *Asbestos, The Miracle Mineral*, which provides general information regarding asbestos and its

health effects, a summary of the regulatory requirements, and tips for ensuring compliance. A companion brochure is also distributed with the videotape. A business card is included with all AQB outgoing asbestos correspondence which informs readers that the videotape is available. The AQB also distributes another summary of asbestos requirements, *Asbestos, What Businesses, Building Owners, Contractors and Others Need to Know about the Asbestos NESHAP*.

An on-going difficulty for the AQB has been fire departments which burn asbestos-containing houses for the purpose of training firefighters. AQB staff have conducted numerous outreach sessions with fire departments and have developed a special form for such notifications.

To ensure effective communication with asbestos project owners and operators, the AQB has developed the *Asbestos Requirements Checklist*. At the conclusion of an on-site visit, owners/operators must sign the checklist indicating that they understand the requirements applicable to them.

Also, to make more efficient use of its limited resources, the AQB communicates on an on-going basis with the Iowa Department of Labor to investigate violations by asbestos contractors.

4. NESHAP Category I nonfriable floor covering

The AQB agrees with EPA policy with regard to the removal of Category 1 nonfriable floor covering. If the material is in good condition, and is not sanded, ground, or abraded, the removal is not considered a regulated project.

5. Policy Determinations

The AQB does not maintain a compendium of its policy determinations; however, the EPA Applicability Determination Index (ADI) is accessed regularly for guidance on specific issues.

B. Data Management

AQB staff enter notification, inspection, and enforcement information into the EPA's Asbestos Contractor Tracking System (ACTS) data base, and these data are uploaded quarterly to the EPA's National Asbestos Registry System (NARS) data base. Because of its antiquated structure, the ACTS data base cannot be shared over a server. Therefore, the IDNR field offices do not have access to the data. The EPA recommends that the IDNR's SPARS be modified to accommodate the ACTS data; thus, field office staff would be aware of sites where asbestos demo/reno notifications had been received, and would not need to contact the AQB staff to inquire regarding these projects. Moreover, field office staff could conduct cursory inspections at sites where notification

had occurred and could alert the AQB regarding any suspect activities.

C. File Review

The AQB asbestos files organized in three different series, i.e., by contractor name, by complaint (chronologically), and by owner/operator where formal enforcement action has been pursued. The files are maintained in a centralized records management facility and are well indexed and organized. File documentation was excellent and included telephone conversation records, inspection reports, event chronologies, newspaper articles, results of asbestos sample analysis, chain of custody forms, notices of noncompliance, administrative orders, and penalty actions. Field investigation photographs are stored separately due to space limitations in the central records center. In all files examined, enforcement actions taken were appropriate for the gravity of the violations. Penalty determinations included consideration of economic benefit where appropriate. Most enforcement actions appeared to proceed expeditiously and delays seemed to be beyond the control of the AQB.

The EPA would like to recognize the efforts of Mr. Marion Burnside, IDNR Asbestos NESHAP Coordinator. Mr. Burnside exercises good judgement and common sense in pursuing enforcement actions, and balances the constant demands of conducting outreach, responding to complaints, conducting inspections, and entering data, all while retaining his enthusiasm and dedication.

D. Summary of Recommendations

1. Develop an asbestos demolition/renovation penalty policy.

2. Develop and implement an ACTS/NARS-compatible interface for SPARS.

APPENDIX E

Asbestos Program Review Questionnaire/IDNR Response

File Review Checklist

Section 7

Monitoring

Monitoring

Introduction

An Air Monitoring System Audit of the IDNR was conducted on October 3, 2001. The purpose of the audit was to document the agency's compliance with the EPA ambient air monitoring regulations. The audit information was obtained from on-site monitor performance audits, agency staff interviews, a review of the most recent year of data in the EPA Aerometric Information Retrieval System (AIRS), and the agency's performance in the National Performance Audit Program. A copy of the Air Monitoring System Audit Questionnaire is included in Appendix F.

The participants in this audit were:

Name	Agency
Sean Fitzsimmons	IDNR
Randy Hudachek	UHL
Leonard Marine	UHL
Kyle Lundberg	Linn County
Jeremy Becker	Polk County
Jeff Wasson	UHL
Jim Voit	Polk County
Leland Grooms	EPA Region 7
Thien Bui	EPA Region 7
James Regehr	EPA Region 7

The full cooperation and assistance of these individuals is acknowledged and greatly appreciated.

Three-fourths of the agency's monitoring sites were visited. Half of these sites were chosen using National Performance Audit Program results, Data Completeness Reports and Performance and Accuracy Reporting System (PARS) Reports. The other half were randomly chosen. Digital photos of the surrounding area and monitoring stations were recorded at each of the sites. Full site assessments were completed and selected monitor calibrations were audited. The following is a list of the audited monitors and the monitor audit results:

Site Location	Pollutant	Mon. Audit Results
Scott County	$O_{3(P)}$	Excellent
Scott County	$O_{3(S)}$	Excellent
Muscatine Power	SO_3	Excellent
Garfield	PM_{10}	Satisfactory

Site Location	Pollutant	Mon. Audit Results
Garfield	PM_{10}(c)	Satisfactory
10th & Vine, Davenport	SO_2	Satisfactory
10th & Vine, Davenport	$PM_{2.5}$	Satisfactory
10th & Vine, Davenport	PM	Satisfactory
Linn County Army Reserve	$PM_{2.5}$	Satisfactory
Linn County Army Reserve	$PM_{2.5}$(c)	Satisfactory
Linn County Army Reserve	PM_{10}	Satisfactory
Linn County Army Reserve	PM_{10}(c)	Satisfactory
Coggan Springs	NO_2	Satisfactory
Coggan Springs	O_3	Excellent
Science City	SO_2	Satisfactory
Science City	SO_2	Satisfactory
Morris Pain, Lincoln	CO	Satisfactory
200 2nd Ave SE	CO	Satisfactory
3200 Pioneer	$PM_{2.5}$	Satisfactory
National Byproducts/Polk Co.	$PM_{2.5}$	Satisfactory
Phillips School	O_3	Excellent
Cornell/Polk Co.	$PM_{2.5}$	Satisfactory
Cornell/Polk Co.	$PM_{2.5}$(c)	Satisfactory
Fire Station #1	PM_{10}	Satisfactory
Franklin School	$PM_{2.5}$	Satisfactory
Franklin School	$PM_{2.5}$(c)	Satisfactory
Lowell School	PM_{10}	Satisfactory
Lowell School	PM_{10}(c)	Satisfactory

* (c) indicates collocated monitors

The results of the monitor audits were all satisfactory or better.

The site assessments were done as per EPA System Audit Guidance and compared each site to the siting criteria found in C.F.R. Part 58, Appendix E. Preliminary results of these site assessments were discussed during the system audit. The IDNR agreed to make all possible improvements and corrections identified by the site assessments with the help and guidance of EPA Region 7 air monitoring staff. The assessments for each site can be found in Appendix F.

Audit Results

The technical systems audit focused on the following five areas:

- Network Management
- Field Operations
- Laboratory Operations
- Data and Data Management
- Quality Assurance/Quality Control

These areas were thoroughly reviewed onsite and through the technical systems audit questionnaire form.

Network Management

The current ambient air monitoring network in the state of Iowa (including local agencies) includes: eleven O_3, sixteen PM_{10}, twenty-three $PM_{2.5}$, five CO, and eight SO_2 monitors. A network review is submitted annually and it is reviewed to determine if monitoring locations need to be relocated, added, or deleted. These monitors are adequately maintained during one visit every two weeks to each monitoring location.

All of the monitors and laboratory procedures used in the Iowa network have been designated by the EPA as approved reference or equivalent methods for ambient air criteria pollutants, excluding their continuous $PM_{2.5}$ monitors. Adequate documentation on proper certification of all standard materials used to calibrate or audit these monitors or procedures was found on-site.

Field Operations

The IDNR participated, as required, in the EPA's national monitor performance audit program conducting audits of each type of pollutant monitor they operate. Within the past two years the results of these audits have been satisfactory. As shown above, Region 7 conducted several monitor performance audits as part of this program audit. At least one analyzer for each pollutant monitored by the IDNR was audited by Region 7. The agency's monitor performance auditing has been done according to the EPA required schedule, however not all audits are being completed with independent equipment and/or personnel of the regular equipment and operator as required.

Laboratory Operations

The laboratory operations for the $PM_{2.5}$ and PM_{10} programs are currently contracted out to the University of Iowa Hygienic Lab. This program has not been audited by the IDNR during the last fiscal year.

Data and Data Management

The IDNR's data completeness has historically been good for the pollutants monitored.

Quality Assurance/Quality Control

The IDNR's quality assurance program, including the required QAPPs and SOPs, are in a complete and approved status.

Commendations and Recommendations

Commendations

1. There were no monitor audit failures.

2. Operators were very knowledgeable about the air monitoring equipment and operating procedures.

3. Operators were very receptive during the audit.

4. Documentation of all quality control records were very well kept and easily accessible.

Recommendations

University of Iowa Hygienic Laboratory

1. The same technician perform the routine operation verification and audit on the PM_{10} analyzers at the Garfield School site (AIRS#19-139-0015). A difference operator should perform the audit to keep the independent integrity of the audit.

2. There was no continuous recording device on the PM_{10} analyzer. A continuous recording device is recommended for all PM_{10} analyzers to record the flow throughout the monitoring period.

APPENDIX F

National Air Monitoring System Audit Questionnaire

Monitor Audit Results

IDNR Site Assessments

Section 8

Title V Fees

Title V Fee Review Summary

EPA started the Title V Fee review by submitting a set of questions to the IDNR concerning the Title V fee revenue, expenditures, and the accounting system. The Iowa Air program provided a detail response to the questions prior to the Title V fee review. During the review itself the IDNR staff provided an extensive overview of the Title V fee collecting, accounting and housing of the funds.

The Emission Inventory Questionnaires (EIQ) are currently tracked in an Access data base using the EIQ number as the source ID, in the near future this activity will be done in SPARS. The EIQ form reporting each major source's emissions is due to the IDNR in March. The actual dollars for the emissions are not due until July 1. This time frame allows the IDNR to check the tonnage of emissions, figure the year's budget, meet with the commission to review the fee and make any adjustments, and make a public notice of the set fee. The set fee is then paid by July 1, for each major source on the actual emissions up to a 4000-ton cap. On a voluntary basis this year the IDNR had 17 sources report electronically using the SPARS system. Through extensive training this year, the IDNR's goal is to be 100 percent paperless next year. SPARS is being enhanced to support Air Compliance and Enforcement data, by early to mid-2002.

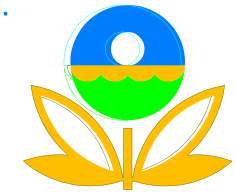
The INDR staff track their time through the use of cost codes to differentiate between Title V activities and Non-Title V activities. At the current time there are 56 FTEs, in which 38.5 are allocated for Title V and 16.5 for grant activity. As part of a biennial process, on July 1, 2001, the IDNR staff is undergoing a time study to see if the current ratio needs adjusting. At the end of the six-month time study, please provide the results and ratios.

The reporting of Title V and Non-Title V funds and activities are reviewed by the IDNR on a monthly basis to make any needed adjustments. The state and industry representatives get together and review the expenditures on a quarterly basis.

The overall finding is that the IDNR seems to be collecting sufficient fees, and accounting for the direct and indirect costs associated with administrating the Title V program in conjunction with the Non-Title V activities. However, as noted elsewhere, the Department maintains no documentation related to the budgeting process. We strongly recommend that the state develop and maintain records outlining the annual budgeting process used to determine which costs are eligible for reimbursement through the Title V program and the rationale for all budget decisions. Maintaining such documentation is important to minimizing the Department's vulnerability during an audit situation.

APPENDIX G

Title V Program Review Questionnaire



Section 9

Comments

Iowa's Comments on EPA's Draft Report
EPA's Response to Iowa's Comments